

L. D. III4.

*Handbook of  
Macedonia &  
Surrounding  
Territories*

А.П.О.



А.П.О.

А.П.О.



А.П.О.

FOR OFFICIAL USE ONLY

This book is the property of H.M. Government. Its contents are not to be communicated either directly or indirectly to the Press, or to any person not holding an official position in H.M. Service.

For Official Use only.

Attention is called to the penalties attaching to any infraction  
of the Official Secrets Act.

# A HANDBOOK OF M A C E D O N I A AND SURROUNDING TERRITORIES

*Prepared on behalf of the Admiralty and  
the War Office*

ΔΩΡΕΑ

Ι. ΜΕΓΑΣ

Αριθμ. 20969

ADMIRALTY WAR STAFF

INTELLIGENCE DIVISION

(No. 1114)

July, 1916



А.П.О.

## NOTE

THIS volume deals with Macedonia and with neighbouring parts of northern Greece, southern Albania, southern Serbia, and southern Bulgaria. The limits of the area thus covered are defined in the opening paragraphs of Chapter I.

The book thus overlaps to some extent the *Handbook of Serbia, &c.* (I. D. 1096), and in the itineraries of roads and railways certain routes have been repeated from that handbook. These have in all cases been revised in the light of information which has come to hand since the *Handbook of Serbia* went to press and while the present volume was in preparation. Especially for the neighbourhood of Salonica much new information has been received and incorporated in this volume. It is necessary, however, to make clear that the conditions described throughout the book are generally those which existed before the European War, except where otherwise stated.

While the general plan of the book does not greatly differ from that of the *Handbook of Serbia*, it may be noted (1) that the scope and arrangement of the introductory chapters has been considerably modified; (2) that English in place of metrical linear measures have been employed; (3) that a gazetteer of the principal towns has been introduced, in preference to including their descriptions in the itineraries; and (4) that no vocabularies are included in the present volume.

The fullest possible use has been made of the available written information, reports, &c., on the different districts covered. As to maps, the most complete authority for the topographical work is the Austrian Staff Map on the scale of 1 : 200,000. The sheets of this map are of varying dates, and opinions differ widely as to their accuracy, which undoubtedly varies as between one locality and another. Among other maps, in addition to the War Office Map of 1 : 250,000, the following may be mentioned: (1) There is a Turkish map of a considerable part of the region included in this book. Probably this map is for the most part based on the Austrian

Staff Map, but modifications have been made here and there, no doubt in places where inaccuracies in the Austrian work came under the notice of the Turkish compilers. It is reported that some of these corrections were made by German officers working under the direction of General von der Goltz. (2) The Greek Government has published a rough map of the parts of Macedonia annexed by Greece after the war of 1912-13, but it does not appear to embody any important information other than that contained in the Austrian map on which it is based. (3) The Greek Government has been of late years carrying out a scientific survey of Greece proper. Seven sheets have been published, of which six come within the area covered by this book. This map is of a high standard of accuracy and execution. (4) The International Boundary Commission of 1913 made a survey of the region between Thessaly and Epirus and north thereof. Regular triangulation was carried out, and the position of various natural features on and near the frontiers was for the first time scientifically determined. (5) The Bulgarian Map of Macedonia and the Vilayet of Adrianople (47 sheets; 1:210,000) in part bears the date of 1914 and shows evidence of considerable recent revision. (6) The available sheets of the Bulgarian 1:50,000 map cover a limited area in the vicinity of Sofia, Samokov, and Kustendil; they are dated, for the most part, between 1906 and 1910.

Having regard to the partial and scanty character of the written and verbal information available, and the wide divergences frequently observed between the maps mentioned above, the distances and altitudes given in the itineraries must generally be regarded as approximate, and the classification of the routes as in many cases tentative. In only a few routes has it been possible to quote the times occupied by travellers, or learned by them from natives. The itineraries should thus be read with caution, and especially as a basis for eliciting first-hand information locally. Observations as to general conditions of the roads and tracks in the different districts are given in Chapter I.

It is necessary to emphasize the fact that in the circumstances the information given cannot be complete, and that conditions are constantly undergoing change. The Admiralty will be glad to receive corrections or additions.



# CONTENTS

CHAP.	PAGE
<b>I. GEOGRAPHICAL OUTLINES AND ROUTES.</b>	
Introduction—Physical character of the South-western division—Southern region : (1) Epirus, (2) Thessaly, &c. —The Macedonian plain and surrounding districts—Region east of the Struma . . . . .	9
<b>II. CLIMATE.</b>	
General conditions—Meteorological stations—Temperature—Frost—Humidity—Rainfall—Mist and Fog—Winds—Thunderstorms—Cloudiness—Conditions affecting aviation—Tables . . . . .	43
<b>III. HYGIENE . . . . .</b>	64
<b>IV. HISTORY AND PEOPLES</b>	
History—Ethnology—Religion—Education, Language, and Literature . . . . .	69
<b>V. GOVERNMENT AND ADMINISTRATION . . . . .</b>	76
<b>VI. MONEY, WEIGHTS AND MEASURES . . . . .</b>	85
<b>NOTE ON THE SPELLING OF PLACE-NAMES . . . . .</b>	97
<b>ITINERARIES :—</b>	
ROADS AND TRACKS . . . . .	99
RAILWAYS . . . . .	417
<b>GAZETTEER OF TOWNS AND PORTS . . . . .</b>	459
<b>ISLANDS IN THE AEGEAN SEA</b>	
Imbros—Lemnos—Samothrace—Thasos . . . . .	496
<b>INDEX . . . . .</b>	500

## LIST OF MAPS

	PAGE
PLAN OF ADRIANOPLE . . . . .	461
PLAN OF PHILIPPOLIS . . . . .	477
PLAN OF SALONICA . . . . .	481
PLAN OF SOFIA . . . . .	487
SKETCH-MAP OF ROUTES . . . . .	<i>at end</i>

The Maps compiled for the *Handbook of Serbia, Albania, &c.* (I. D. 1096) cover a considerable portion of the area described in this volume. It is strongly recommended that they be used for reference where possible.

# MACEDONIA

## CHAPTER I

### GEOGRAPHICAL OUTLINES AND ROUTES

Introduction—Physical character of the South-western division—Southern region: (1) Epirus, (2) Thessaly, &c.—The Macedonian plain and surrounding districts—Region east of the Struma.

#### INTRODUCTION

THE area with which this book deals cannot be defined as a geographical unit. Its centre, roughly speaking, is Salonica. Its southern limit is approximately a line drawn from the Gulf of Arta on the western coast of Greece to the Malian Gulf on the Aegean side. The south-western part of the area may be thus taken to cover Epirus and Thessaly. The western coast-line included extends from Prevesa on the Gulf of Arta northward to Valona. The southern part of Albania, defined approximately by the lines of the Devoli-Semeni river, is included; northward of this, the limit is nearly the Serbian-Albanian frontier as far as the head-waters of the Vardar. An artificial northern boundary is supplied on the Serbian side by the road Tetovo (Kalkandelen)-Üsküb-Kumanovo-Gyueshevo, and on the Bulgarian by the road and railway lines Gyueshevo-Kustendil-Sofia and Sofia-Adrianople. Over the greater part of this last line, and beyond Adrianople to the Aegean, the river Maritsa provides a natural boundary. Along its lower course this river is also the political frontier of Bulgaria and Turkey.

In the present chapter the various natural regions into which this area may be divided are dealt with, broadly, in order from south-west and west to east, and a similar general



order is followed in the arrangement of the roads and tracks of which itineraries are given in this book. The first section below, on the physical character of the south-western division, applies specifically to the parts of Macedonia and adjacent territories west and south-west of the Vardar, but it is in great measure applicable to the whole area covered by this book. For the more detailed geographical descriptions in the remaining sections, this whole area is divided into (a) a southern region, including (1) Epirus, and (2) Thessaly, lying respectively west and east of the Pindus range; (b) the Macedonian plain (which may be very roughly represented by the half of a circle whose centre is Salonica), and the mountainous districts surrounding it; (c) the region E. of the river Struma, which bounds the Macedonian plain on the east.

#### PHYSICAL CHARACTER OF THE SOUTH-WESTERN DIVISION

For all practical purposes the land surfaces of the SW. part of the Balkan peninsula may be classified under two types: (1) Mountainous regions; (2) Plains, usually alluvial.

##### *Mountain Regions*

The mountainous regions are characterized by very steep and often precipitous slopes. This is due to the fact that the greater part of the mountains is formed of various kinds of limestone. Their precipitous character is, of course, a phenomenon which meets the eye; and the practicability of this or that slope is, as far as angle of elevation is concerned, easily calculable by any one accustomed to the mountain regions of Western Europe. But, in respect to practicability of traverse, these mountains of the SW. part of the Balkan peninsula present certain contrasts to those of Western Europe which do not meet the eye, and can only be realized by those who have actually attempted to traverse them off the beaten path. A hill slope of moderate elevation may appear, in fact does appear, to the eye of an observer at a distance of even a few hundred yards, to be as easy of traverse as the moors

of Scotland and N. England. Practical experience of such a slope gives a very different impression. Sharp-pointed rocks and stones set close together, interspersed by a low growth of hardy shrubs, many of which are thorny, from 18 inches to 2 feet high, render passage of what seems to mere observation an easy hill slope very laborious and very slow. These are the ordinary obstacles which beset the wayfarer at every step he takes. But apart from these there are more serious obstacles in the shape of stream gullies, deep and precipitous, and low perpendicular rock faces, to say nothing of higher and thicker scrub, which may not have been visible to the observer when he made up his mind to tackle the slope, but which are certain to be encountered at short distances by any one who would attempt such a traverse. Putting the matter briefly, a short cut is generally the longest way in the mountain world of Greece and Albania. The traveller had best be content with the assurance that in the course of centuries the inhabitants of these regions have discovered the shortest way in respect to time from one place to another, and have by use beaten it into a line of track. Divergence from tracks is risky and undesirable even for the unimpeded traveller on foot. For the traveller on horseback it must soon end in an *impasse*, even if it does not previously end in disaster.

From a military point of view there is another aspect of the question. A party defending a ridge against attack would be liable to find that the attacking force was able to make its way up the slope, slowly indeed, but with the advantages afforded by any amount of cover provided by areas of dead ground, and by the rocks and brushwood already described. That accounts for what seems the extraordinary success with which apparently inaccessible positions have been stormed in the course of wars, both recent and otherwise, in the Balkan peninsula.<sup>1</sup> Owing to the intensely rocky nature of the mountain sides entrenchments are very difficult to dig; but

<sup>1</sup> In various works on the Greco-Turkish war of 1897 it is mentioned on several occasions that the Turks were careful to employ their Albanian regiments (practised mountaineers) in fighting among the mountains.

there are always plenty of loose stones with which breast-works can be constructed.

The average colouring of a hillside is, in the bright sunlight which is typical of the climate of the SW. Balkan peninsula, a vivid white or light grey, with patches of dark green. But the patches of dark green have white rocks standing out in them. Practical experience would suggest that a dirty white is the best protective colouring for troops operating in the mountain regions. The present writer has seen a body of Epirote peasants advancing to the attack. Their most prominent garments were the fustanella and a shirt, both of a dirty white. Among the rocks it was almost impossible to distinguish them at two hundred yards, unless they made a conspicuous movement; and even when, at the same distance, they were among the dark green scrub, it was impossible, provided they lay still, to be sure whether you were firing at a man or a rock.

Forests, properly so called, are for the most part not very large. Moreover, they stand, as a rule, above the 3,000-foot level. They are generally on the north slope of the ranges. They are composed for the most part of fir, pine, beech, plane, and oak trees. Consequently the undergrowth in forests is usually thin, and, as far as the mere vegetation is concerned, they do not present a serious obstacle to a man on foot. But they often grow among low rocks of the most formidable character.

There is, however, one kind of woodland, formed of low-growing oaks, which is to be avoided. Forests of ordinary oaks are found, indeed, with trees of the size of the average English oak as grown in woods. These are usually open in character. But there is also a low-growing oak, from about 15 to 20 feet high, which forms almost impenetrable thickets. Such woods look like spinneys of young oaks. In point of fact the trees may be very old. They are self-sown; grow very close together, and form a thicket which is practically untraversable except by such narrow tracks as may have been made through it.

The low-growing scrub from 18 inches to 2 feet high, to which reference has already been made, is found everywhere



But there are hill-sides covered with a much higher scrub, from 10 to 15 feet high, formed of plants of various kinds which grow in the form of bushes. These thickets are usually so dense that they are very difficult to traverse, and, once involved in them, a man is almost certain to lose his way, unless the lie of the ground be clearly indicative of direction.

### *Plains*

These are formed for the most part of fine alluvium brought down by the rivers and streams, and deposited either in the broader parts of river valleys or in basins among the hills, or on the coast at the mouths of rivers.

They are often of what is practically a dead level ; but, in the case especially of the larger ones, may be of a rolling character, i. e. of low rounded ridges with broad shallow hollows or valleys in between.

From a military point of view their condition in summer must be distinguished from their state in winter.

Under the heat of summer the surface is apt to become very hard. They may indeed be covered with deep dust, especially along the tracks ; but, as the annual ploughing rarely disturbs the surface to a greater depth than 6 inches, there is hard-baked earth under the dust layer at this season. In the summer, therefore, as far as the ground itself is concerned, they might be traversed in almost any direction by infantry, cavalry, and artillery. Even traction engines with broad-tired wheels could make their way across many of them. (See Notes on Roads, p. 17, at foot.)

Marshes and river beds on them are as a rule easily discernible for a distance, the former by the growth of rushes, and the latter by the growth of bushes along their course. Before taking a line across a plain, it is important to inquire whether any marsh lies across it.

### *Rivers*

As a means of navigation or transport the rivers are a negligible quantity. In the mountains they flow over rocky

beds in what are nearly always steep-sided, and often narrow, valleys. On reaching a plain, if there be a sensible fall in the ground, they spread out over wide stony beds out of all proportion to their usual size. If the plain be dead level and the soil something like pure alluvium, they take winding courses between almost perpendicular banks several feet high. Under such circumstances they have hardly any current (save when the water is high), and are often deep. Fords in such parts of a river are often bad owing to the muddy bottom.

From about November to April the rivers are at their highest. At this season fords which are almost dry in the summer become, even under ordinary circumstances, several feet deep. In heavy rains the larger rivers become untraversable; and in particularly bad weather even the smaller ones may hold up the traveller for several hours. But, as a rule, even in winter the freshets run off rapidly, and the water usually returns after a few hours to its normal winter level. It is needless to add that there are exceptions to this, and that in continued wet weather a traveller may be detained at a ford for several days. The natives know to an inch when the fords become untraversable. If the native will cross a ford, the traveller may safely do so however formidable be the appearance of a river. On the longer fords—some are very long—it is most desirable to have a guide, as such fords are often very twisty and tricky. Without a guide an individual or company may get into fatal difficulty, especially if the water be at all high.

From April to October little rain falls. The only danger of a freshet arises from heavy thunder rain in the mountains, and even that is very rarely sufficient to cause a rise such as would make fords dangerous. The present writer has never experienced anything of the kind in the summer season. Still it is well to push on as quickly as possible if thunder clouds are observed on the mountains near the sources of streams which have to be traversed in the course of the march.

*Routes*

There are few metalled roads in the whole region. Some of the few marked on the map have never been completed; and others which have been completed have not been kept in repair. Moreover, such as have been made, though their surface when in repair is not bad, have not been designed for traffic heavier than an ordinary carriage and the light farm cart of the country. Even ordinary motor traffic would soon cut them up; and heavy motors or artillery would reduce them to an unusable state in a very short time indeed.<sup>1</sup> Some of the unmetalled tracks, especially in the plain, can be used by wheeled vehicles in the dry summer season; and, though of course they are very rough, these tracks, owing to the extreme hardness which the ground attains at this time of year, would stand a great deal of very heavy traffic without producing worse inconveniences than very deep dust. Heavy traffic could go even over the fallows in the autumn season, from July to October. The average ploughing does not disturb the soil for more than 6 inches from the surface, and the subsoil beneath this depth is during the summer as hard as rock. It is hard enough, at any rate, not to cut up into impassable tracks under the pressure of broad-tired wheels of heavy vehicles such as traction engines.

At least 99 per cent. of the lines of communication in the South-west Balkan peninsula are tracks. Their nature differs very widely according to whether they are on the mountain or the plain.

Eighty per cent. of the tracks are mountain tracks. These are of much the same character throughout. They are narrow, admitting, as a rule, of the passage of one baggage or riding animal, or of one foot passenger, at a time. This is certainly

<sup>1</sup> A correspondent with the Greek army in Epirus, speaking of the state of the made roads there after the Greek army had passed north along them, says: 'The roads in parts are terrible. They were badly constructed to begin with, but they have been hopelessly cut up by artillery, and at places are almost impossible.'

all that could be calculated upon in reckoning the time of passage of a body of soldiers from place to place. For the horse of West Europe many of these tracks would present such difficulties as to make it unadvisable to employ him. The Greek or Albanian pony or mule is accustomed to them, and can make his way along them without much difficulty as a rule. But there do occur plenty of bad places where even the native animal, especially if heavily loaded, cannot be trusted to keep his feet. At such places it is advisable for a rider to go on foot, or, in the case of a baggage animal which is carrying a load of some importance, for him to be led by a halter strong enough for the man who leads him to jerk him back on to the road in case of a slip.

Contrary to popular opinion, the Greek or Albanian pony is more sure-footed than the mule. He is a small animal, and he looks weak ; but he is very tough and hardy, and is quite capable of carrying  $12\frac{1}{2}$  stone 20 or even 30 miles in a day without a break-down. Feeding on the scale customary with the larger horses of Western Europe would be more likely to decrease than to increase his staying power. With him a little good hay—such as he seldom gets—would go a very long way. He is not accustomed to reins, as a rule. He is provided with an ordinary halter. The rider holds this in his right hand. If he wants the pony to turn to the right he pulls the halter lightly ; if he wants it to turn to the left, he lays it against the right side of the pony's neck.

As to the tracks themselves, i.e. those in the mountains, they are paths winding in and out amid rocks and low scrub, when the foot-passenger or animal which is traversing them steps in the spaces between rocks or large stones firmly fixed in the soil. They are not much worse in the rainy season than in the dry, except that they are apt to become dangerously slippery in parts.

Though the tracks follow naturally the general line of a valley wherever that is possible, they seldom go along the bottom of it. This is due to the fact that the rivers run in courses which, if not actual ravines, are steep-sided. These



banks approach the water so closely that there is often no room even for a goat path beside the actual bed of the river. Hence most of the paths are ledges running along the sides of the valley well above its bottom. In the summer season indeed, when the smaller streams are dry, their beds are used as tracks, and a double line of track may develop, a lower one in the river bed, and a higher one on the mountain side.

There is one practical consideration in relation to these tracks which should not be overlooked in any description of them. As they stand, they are impossible for artillery or wheeled transport. How far and how rapidly they might be made so is a question which could only be answered by an officer accustomed to the pioneer work of an army. For such an expert some general data may be useful.

The characteristic limestone varies in hardness, but is not as a rule peculiarly hard or peculiarly soft. That it can be worked into a serviceable road for wheeled traffic without blasting, is shown by the traces of very ancient wheel roads which are found in places on Greek mountain sides. There would be no reason to make the surface of a road which had been formed out of a pre-existing track. All that would be necessary would be to widen the track. The rock itself would form both bed and surface of the road ; and, though it could hardly be suitable for motor traffic, yet it would be possible for artillery and for cart traffic. This would apply to all tracks which do not actually run along the face of a precipice ; and, inasmuch as none of these tracks have been constructed, but represent merely the line of least resistance to a man going from one place to another, tracks running along the face of actual precipices even for short distances are rare, for the very good reason that nature does not as a rule supply continuous ledges along which they can pass.

On the plain the tracks are of a wholly different character. Their state in the summer season has been already described. In the winter season such tracks are impossible for heavy

traffic,<sup>1</sup> and by no means convenient for traverse on foot or horse. The mud in rainy weather is indescribable. The soil six inches beneath the surface, which has been described as being as hard as rock under the heat of summer, becomes water-soaked ; and it is literally the case that a foot-passenger may have to go for miles in mud up to his knees.

Along some parts of the tracks there are remnants of old paved roads of the Turkish period ; but these are few and far between, and, when they have worn badly, as is usually the case, are rather an impediment than an aid to progress.

Reports on the state of roads must be given with the caution that such statements cannot with any assurance be carried over the winter succeeding the date on which they were made. The winter rains are so heavy that wash-outs occur again and again ; bridges and culverts are carried away ; and a road which may have been a good chaussée in the previous summer may be reduced by the winter rains to a state which renders it unusable for wheel traffic, and, if it crosses a river of any size, for even horse or mule traffic, until the river falls. In these poor countries the money for making and repairing roads is not easily forthcoming, and chaussées which have been badly cut up by the weather are apt to remain unrepaired for several seasons, or even, in some cases, to fall into disuse. This is especially the case when a railway has been constructed along or near the line of road. It seems to be regarded as superfluous to maintain the chaussées when railways running between the same termini are there to carry the through traffic. The roads which the Turks constructed in quite recent years in Southern Macedonia and Epirus are reported on as good highways. As they were made with the military end in view it may be presumed that they will carry artillery traffic and baggage wagons without cutting up badly. But it is very doubtful whether

<sup>1</sup> Even in May the Turkish troops at Trikkala had to make a long detour round the W. Thessalian plain, because the tracks in the plain proved impassable for their artillery.

either Turkish or Greek roads would carry traffic of this kind for long without serious deterioration, because the expense of making a thoroughly solid foundation has been too great to be faced. This would tell especially where roads traverse plains or valley bottoms. On the mountains the defect would not matter greatly, because there the rock would, save under exceptional circumstances applying to very short stretches of road, afford a firm base such as would give the road surface the necessary support. A serious defect of the Turkish road-making is that supporting walls and embankments are made or fixed with dry stone. This will not stand the winter rains. In Greece mortar is used in such walls when the contractor and the road surveyor have not had other interests in common.

In the itineraries attached to this volume such information as has been available has been given of a region which has been for the last forty years less traversed by Western Europeans than any part of Europe south of the Arctic regions. Even before that time the written records of travellers in the region are few and far between. But as far as highways and tracks are concerned, nature has in this region of the world so formed the country that the tracks remain the same throughout the centuries, for the very good reason that nature has placed the strictest limitations on possible lines of route. Though the Romano-Greek historian Polybius and his plagiarist Livy have not been drawn upon for information contained in this volume, it is literally true that the greater part of what they say as to routes in northern Greece, Epirus, and southern Macedonia would form trustworthy material for a guide-book at the present day.

The region about which there is most doubt as to whether the information here given is quite up to date is that of Southern Epirus. It is quite possible that various roads have been improved or even made by the Greek Government. But no information on this question is at present obtainable.

## SOUTHERN REGION—(1) EPIRUS

*The Pindus Mountains*

The decisive physical feature of this geographical region is the Pindus range. To its influence may be traced not merely the land features of the country, but also, in the main, those of the coasts, especially of the western coast. It begins at its southern end just outside the area with which this book deals, in the confused mountain region of Aetolia which lies N. of the middle of the Corinthian Gulf, to the very shores of which it reaches. It runs northwards in a general direction somewhat W. of N., approaching ever more nearly to the west coast, with which it may be said to come into contact in Montenegro. It thus cuts off Epirus and NW. Greece from the remainder of the Balkan peninsula. Moreover, this 'cutting off' is no mere geographical expression, but is, owing to the very formidable character of the chain, a stern reality. The effect of this land formation is, and has always been, strongly marked in the history of the region thus isolated. Its inhabitants, both in ancient and modern times, have been prevented from easy intercourse with the outside world, and have consequently tended always to be inferior in civilization to their neighbours east of the mountains and beyond the sea in Italy.

This tendency has been increased by the nature of the country itself in which they live ; for the land formation W. of Pindus contrasts in certain important respects with that E. of the range.

On the west side the general course of the subsidiary ranges is N. to S., that is to say, they run parallel with the main chain of Pindus. Some of these are little inferior in height to it ; and thus any line of communication from the coast eastwards has to surmount the most formidable obstacles. The whole of Epirus is like a gigantic ploughed field, of which the ridges are steep-sided mountain ranges, and the furrows are valleys of great depth, so narrow at the bottom that there is often no



room save for the rivers which run down them. History has shown that it is a splendid country for defence, and a very difficult region for attack. All that is in favour of the assailant is the sparseness of the population.

### *Rivers*

After what has been said about the mountains, it is perhaps unnecessary to say that the rivers run either from N. to S. or from S. to N. The river system of this south-western part of the Balkan peninsula is remarkable for the fact that it has practically but one centre—at the pass of Metzovo, where the road from Yanina leads over to Trikkala and Larissa. Within a few miles of this place rise the Voyusa (the ancient Aous), the Aspropotamo (the ancient Achelous), and the Artinos river (the ancient Arachthus). Here, too, the Thessalian Salamvria (the ancient Peneus), and certain southern tributaries of the Vistritza (the ancient Haliaeomon), have their rise. The fact that Metzovo stands at the meeting-place of the great river valleys which, despite the difficulties which they present, must be in some sense the main lines of communication in Epirus, makes it of great strategic importance. This is increased by the fact that, though it is a lofty pass, it is the southernmost of the more practicable passages through the Pindus chain. It is of special importance also as a double pass leading from Epirus, not merely to Thessaly, but also into the Vistritza basin, and eventually into the Macedonian plain.

### *Routes through Epirus*

Epirus offers two great routes to the Balkan peninsula, (1) from the bay of Santi Quaranta, by Koritza and the Tsangon pass to Upper Macedonia, or (2) from Santi Quaranta or Prevesa, via Yanina, Metzovo, and Grevena, towards the lower Macedonian plain about Salonica, and via Metzovo, Kalabaka, and Trikkala to Thessaly and N. Greece. The route from Valona via Berat and the Tsangon pass into Upper Macedonia is the more important, and has

two distinct advantages over the routes from the south-west, in that Valona is an infinitely finer harbour than Santi Quaranta or Prevesa, and the distance to Macedonia, at any rate, is shorter.

Access southwards towards Greece is best obtained by the route running SSE. from Valona to Yanina ; but the part of this route near Valona, at any rate, would require much making before it became practicable for wheeled transport or artillery, and the southern parts, more towards Yanina, though they have been 'made', might be in an interrupted state owing to wash-outs and the breaking of bridges.

Yanina is essentially the road centre of Epirus. Its importance, and probably its original existence, are due to its position where the natural routes of the country meet.

Yanina commands the country in no ordinary sense. It bars all the practicable routes W. to E. south of the latitude of Valona as far as the Gulf of Arta, save one obscure route of uncertain value about which something is said later. Yanina also commands the only routes N. and S. which can be said to be of any military importance. There is indeed a coast route, but it consists of little more than a series of mountain tracks from village to village strung together, and cannot be called a through-route in any real sense of the term.

The obscure route to which reference has just been made is one which went in former days from the Gulf of Arta into Thessaly, going through the Pindus by a mountain pass some distance S. of the Metzovo Pass. Its starting-point was almost certainly what is now Arta. It is certain, too, that it entered the Thessalian plain at the site of the modern village of Porto Pazari. Its probable line is given in Route 21. It was used on more than one occasion by fairly large forces of Romans. It is certainly not more than a mountain track in quality ; but still it might become important under conceivable circumstances.

It will be apparent that the strategical geography of this region W. of Pindus really hinges on the two passes of Tsangon

and Metzovo. Through the former of these the Turks are said to have made a good road in recent years. The pass is also the lowest through the Pindus range, and is therefore least liable to be blocked by snow in winter. The pass of Metzovo is lofty, and snow may lie deep in it at peculiarly bad periods in winter (see note on Route 14). It is possible that the Greek Government has improved the important route through it since the war of 1912-13. But up to 1912 the road through it was certainly very inferior in character to that through the Tsangon, if recent reports as to the latter be even near the truth. The reason for this was that the Greek Government had put such large duties on all imported goods that trade traffic through the Metzovo pass had all but ceased.

### *Harbours of the Epirote Coast*

Details of the harbours of the west coast are given elsewhere in this book. General remarks must be of the nature of the obvious. There are various second and third rate harbours on the Epirote coast; but only two which are first rate—Valona on the mainland, and the island harbour of Corfu. Save for a certain exposure to the N., both of them are desirable anchorages for large vessels. Valona used to be notoriously malarious. Corfu is notoriously healthy. Of the secondary harbours, Santi Quaranta is apparently the best for vessels, but the place itself is very malarial. Prevesa, too, has not a good reputation with regard to health. Owing to the shallowness of the bar at its mouth, the Gulf of Arta, which might otherwise be very useful, is practically out of the question for vessels drawing more than 8 ft. of water. Even the little Greek coasting steamers frequently ground there. The bar is sandy.

At all the ports except Prevesa landing of goods and passengers has to be made in small boats, there being no piers or quays at which vessels of any size could get alongside.

In ordinary Mediterranean weather such landings are easy enough, but there are days in the year on which they are very difficult, and some on which they are impossible.

### *Supplies*

With regard to local supplies, the case in this western region is simple. The plain stretching N. from Valona to Durazzo is the only rich area in the whole region, but its limited extent precludes the possibility of its local produce being of any real significance in relation to the demands of a modern army of even moderate size. The west and north shores of the gulf of Arta are productive, but what has been said of the plain of Valona would apply more emphatically to them.

## SOUTHERN REGION—(2) THESSALY, &c.

### *Mountains*

The side of the peninsula E. of the Pindus chain, and S. of the latitude of Salonica presents in certain respects a marked contrast to the Epirus region. Here the subsidiary ranges of Pindus do not run N. to S., but E. to W., except the coast range which runs N. to S. from the gulf of Salonica to the strait of Euripus at the SE. corner of Thessaly. This chain has no special name as a whole, but is formed of the masses and ridges of Olympus, Ossa, and Pelion. Also these ranges are not so closely set to one another, and have between them plains of considerable area.

Pindus is linked with this coast range by three subsidiary ranges :—

1. The range, or mass of mountains, the main ridge of which follows the V-shaped course of the Vistritza river on its N. side, uniting with the main range near the Tsangon pass.



2. The range which branches from the highest summit of Olympus and follows the lower course of the Vistrizza on its S. side, uniting with the main range of Pindus in the neighbourhood of the pass of Metzovo.

3. Mt. Othrys in S. Thessaly, connected with Mt. Pelion by a low ridge N. of Volo and its gulf, and with Pindus in the latitude of the gulf of Arta.

The consequence is that whereas on the W. side of Pindus the mountains are in the main obstacles to passage from E. to W., on the W. side they bar the routes N. to S.

### *Coast from Volo to Salonica*

From Volo to Salonica there is nothing in the shape of a harbour. The coast range descends steeply to the sea for a great part of the length of that shore, and where it is broken, at the mouth of the Salamvria or Peneus river, or where it ceases on the gulf of Salonica, the marshy regions which border the sea afford no havens of shelter. There are various stretches of sandy shore where small boats can put in in fair weather. The word *Skala* in this book implies such a landing-place. Otherwise facilities for landing are entirely absent between these two places. Volo itself is the principal port in Thessaly, and has a good and safe harbour. Farther south is the Malian Gulf, with Lamia not far from its shore. Though this gulf is peculiarly sheltered, yet the facilities for landing are very meagre. There are two ports, Styliis on the N. shore, and Hagia Marina, a few miles away on the W. shore. At Styliis the water in shore is very shallow; at Hagia Marina vessels drawing 16 ft. of water can get at any rate within  $\frac{1}{2}$  mile of the shore.

For shipping facilities at these several points see *Gazetteer* under the headings of Lamia (p. 471) and Volo (p. 493).

*Routes*

Entering this eastern region from the N. the first obstacle is the marshes which lie W. of Salonica. They extend, especially in winter, a long way into the Macedonian plain, and are reported to be quite impassable at that period of the year.

In summer there are, indeed, possible routes across them. But the only military way past them is round them, judging from the strategy of the Turkish army in 1897, and from that of the Greek army in 1912. This fact affects the choice of routes to the S. of them. There are two main routes S. together with certain very important variants. The first main route is the coast route. After rounding the marshes W. of Salonica it comes down to Katerini on the west coast of the Salonica gulf. It then goes S. to the mouth of the Salamvria (Peneus) river, and turns W. through the vale of Tempe, debouching on the plain of Larissa not very far from that town. All that can be said here as to this route is provisional. Up to 1912 there does not appear to have been anything of the nature of a made road or *chaussée* along it N. of the mouth of the Salamvria (Peneus) river, though the route seems, in parts, at any rate, to have been possible for wheeled traffic.<sup>1</sup> There was in 1912 a made road from a crossing near the mouth of the Salamvria through the vale of Tempe to Larissa. There was also a railway between the same points. The road had originally been good and was still in good condition through the pass itself to Larissa. But in the low land E. of the gorge, near the river mouth, it had been allowed to get into a very bad state, probably because the railway had absorbed most of the traffic to Larissa. This railway is now linked up with the Monastir-Salonica line, thus completing the first direct connexion between the Greek railway system and that of Europe generally.

<sup>1</sup> It is true that N. of Katerini there did formerly exist a carriage road. But a map on which the nature of the roads of this region has been recently marked by a Greek officer does not show this road as more than a track. That is, perhaps, not conclusive as to its nature; but it represents the latest evidence obtainable in March, 1916.

Physically speaking this is the easiest route S. from Salonica. Any other of the routes S. involves the traverse of at least two mountain chains by passes of more or less height and physical difficulty. This route is not faced by any such obstacles, for the road through the only pass which it traverses, the Vale of Tempe, is practically, though not mathematically, on the level. In ancient and mediaeval times this was the customary route to Thessaly from the north. But it is significant that in the war of 1897 the Turks did not attempt to make their main advance through Tempe, though they used the northern part of the route to it, and then a variant of it, as one of their main lines of transport, and, to a certain extent, as one of their lines of advance. Their reasons for avoiding this route are perhaps obvious. Tempe is a most formidable defile. Any attempt to force it would inevitably fail if the defending force was on anything resembling an equality to the force assailing it.<sup>1</sup> It is true that, topographically speaking, it may be turned by mountain paths N. and S. of it. There are two to the N. of it. One ascends the mountain by Rhapsani. A much more important one is that which comes from Leftokarya, on the coast, by way of Karia and over a ridge of Olympus by Lake Nezero, descending into the valley of the Salamvria (Peneus) river just clear of the W. end of the defile of Tempe. It communicates not merely with the coast route at Leftokarya, but also with the great inland route at Ellassona. The Greeks were careful to seize this route at the outset of the war of 1897, evidently for this reason. The southern one goes first down the coast and then turns W. over the ridge of Ossa to the S. of that peak. But the paths by Rhapsani and over Ossa are of such a nature that only comparatively small bodies of men could use them; and they are impossible for artillery. Thus only small forces would be required for their successful defence. Another possible strategic use of Tempe is implied clearly in the fact that when the Turks had advanced into southern Thessaly and

<sup>1</sup> Von der Goltz implies (though he does not actually say) this in his book on the war of 1897.

were operating at Phersala and Domoko they left a strong detachment on the lowland at Platamona, near the mouth of the Salamvria (Peneus) river, to prevent the Greeks landing troops there and cutting their communications in northern Thessaly either through the defile of Tempe, or the pass to Ellassona via Karia. As regards the route through Tempe, the Turkish command in 1897 evidently thought that the forcing of the infinitely less formidable Meluna Pass, on the great route which has not yet been described, was an easier enterprise than any attempt to get through Tempe.

Furthermore, the part of the route to the N. of Tempe runs, as far as Katerini, so near the coast, that it is open to attack from the sea; and in the wars of 1897 and 1912 the Greeks were superior to the Turks on that element.

The variant route to which reference has been made leaves this main route at Katerini. It goes up a river valley which receives the drainage of the N. slope of the main peak of Olympus. It passes the site of the ancient Petra, then goes across the col of the ridge which joins Olympus to the mountains which run along the S. side of the Vistritza (Haliacmon) valley; and descends eventually to the plain and town of Ellassona, where it joins the second of the two main routes. By this route a large part of the supplies for the Turkish army of 1897 were carried to Ellassona, the town which formed the immediate base for the invasion of Thessaly. In 1886, at the time of a threatened war between Turkey and Greece, which never came off, the Turkish army was concentrated at Ellassona. The Turkish commander caused a road practicable for wheeled vehicles to be constructed along this variant route. Though it was constructed merely in such a way as to provide for a temporary purpose (with bridges of green wood, &c.), yet it seems to have served that purpose satisfactorily. By 1897 it had fallen into disrepair, but was then reconstructed in more permanent form. This route is evidently important, because both in ancient and modern times it has always played a prominent part in wars conducted in this particular part of the world.



With regard to the strategic qualities of the great inland route from the N. a great deal of information is available from the works of those who have written on the Greco-Turkish war of 1897, and especially from the best of them—*Der Thessalische Krieg*, by Von der Goltz. Such military considerations as are mentioned in relation to this route and to the strategical geography of Thessaly are taken from the practical experience and considerations suggested by that campaign.

Of the region between the Macedonian and Thessalian plains it may be said generally that the gathering of armies can only take place in the larger valleys in which the richer places lie, where shelter is possible and water is present, and where the available roads and tracks meet. This is indeed true of the whole south-west of the peninsula. In this particular region the plains of Ellassona and Grevena in the N., and those of Thessaly in the S., are most important. Ellassona is the natural immediate base for an invader of Thessaly from the N.

The routes to Ellassona are as follows :

(a) The route from the coast road at Katerini already mentioned. (See Route 1.)

(b) A route coming from the NW. from Servia (Serfije) over the Sarandaporon (Volustana or Kirkgechid) Pass. (See Route 7.)

To Servia two great routes lead :

(c) From Verria (Karaferia) (which has a station on the Monastir-Salonica railway), more or less along the Vistritza river SW. into the mountains. The route leaves the river, which flows at this part through a sort of chasm, and goes over hills and the plain of the Sari Göl (Yellow Marsh) to Kozani. Then it turns SE., passes over a low range, and, having crossed the Vistritza river by a good bridge, reaches Servia. (See Routes 50 and 7.)

(d) From the Monastir railway at Sorovich station to Kozani, without passing over any great natural difficulties, and so to Servia by the same line as route (a). (See Route 55.)

A branch of this last route leads to Grevena.

All these roads are said to be passable for motor traffic.

Thus Ellassona and Grevena are the natural bases for any forces either attacking or expecting attack from Thessaly. The strategic case of Grevena may be dismissed in a few words. Apart from its great importance as commanding the great route via Metzovo to Yanina, several mountain paths practicable for infantry at any rate lead S. from it and its region via Dimnitsa (see Routes 58, 59) into the upper valley of the Salamvria (Peneus) river about Trikkala and Kalabaka. The Greek irregular bands operated on this route in 1897 with the double intent of cutting the line of communication between the Turkish Army in Epirus and that advancing on Thessaly, and also if possible of getting on the line of communication of the army operating via Ellassona. The attempt did not succeed, but it caused a great deal of anxiety to the Turkish command. The left wing of the Greek army in 1912 passed along one or more of these paths, and seems to have taken artillery with it.

Ellassona itself is a town of wretched hovels. But it stands in a plain which forms a good centre for concentration. In 1897 the Turks used both the Servia and the Katerini routes for transport purposes, the former of these being already a good road; the latter having to be reconstructed. Between Servia and Ellassona the pass variously called Volustana or Sarandaporon (3,117 feet) is said to be a formidable position of defence. But the Greeks drove the Turks from it in 1912. It is true that the Turkish forces in this region were not at the time very numerous. The pass on the Katerini road is of much the same height, and is said to be quite as formidable. Immediately N. of the town of Ellassona is a strong position for a force defending the route from attack from the south.

Eastwards from the town a mountain path of apparently good quality leads by way of Karia to Leftokarya on the coast route (see above notes on this route).

From the W. what is evidently an important military way comes from Diskata (see Route 63). It is apparently not suitable for wheeled traffic. It is part of the *direct* route to Grevena.

South from Ellassona two routes lead into Thessaly in the direction of Larissa. The first is the direct route via the Melouna Pass (see Route 7), and is by far the more important of the two. The pass itself is not a lofty one, and, now that there is a good road through it, is easy of traverse. It is not easy to defend, owing to the fact that the ridges on either side of it can be scaled. Also an assailant from the N., when he has carried the pass, finds the earlier part of the road S. through the plain commanded by the heights of Akrotiri (2,350 feet), which he has therefore to capture before he can use the road.

The other passage S. from Ellassona is more circuitous. It leads down the course of the Xerias (Ellassonitikos) river, which, till the last 3 miles before it reaches the plain, flows through a fairly broad valley. But when it reaches Damasi it enters a defile so steep-sided and narrow that there is only just room for the road beside the river. It is true that there is a way round, the Pass of Reveni, which runs due S. from Damasi and then E. along the Salamvria ravine to Gounitza. But it is evident from the experience of the Turks in 1897 that the position at these two passes is not an easy one to force.

The roads from the Tempe, Melouna, Xerias, and Reveni passes all lead to Larissa. Larissa is, indeed, almost as important a road centre E. of Pindus as Yanina is to the W. of that range. It is covered on the N. by the Salamvria (Peneus) river, which is too deep to ford in the winter season. But its position affords no other advantages of defence.

The road W. to Trikkala is not a good one, but the Turks certainly moved artillery along parts of it in 1897.

The chief road S. runs to Volo. In 1897 it was evidently a good military way.

Some miles S. of Larissa the plain of Eastern Thessaly is divided from that of the W. by a line of what are at first hills. These hills become much more formidable to the S. near Velestino, where they run to 2,600 ft. and are called Mavrovouni or Kara Dagħ. But over the northern part various tracks lead from Larissa in the general direction of Phersala and

Domoko; and three of these were used, apparently without any difficulty, by the Turks in 1897 for the transport of artillery.

Near the S. end of the Mavrovouni (Kara Dagħ) is the important position of Velestino. Any one advancing from Larissa towards Volo must pass beneath it; and its importance by nature has been increased owing to the fact that it commands the junction of the Volo-Larissa and the Volo-Trikkala railways. Von der Goltz points out that it has this further advantage, that a force defending it, if obliged to retreat, can fall back on any one of three routes, E. to Volo, S. to Halmyros, or W. to Phersala. Furthermore an enemy advancing S. by the main route, Phersala-Domoko-Lamia, would not be able to ignore a force at Velestino, since it might fall upon his flank and rear.

We now come to the most southerly barrier in the region with which we are dealing, the Othrys range. It consists of two parts: (1) A great square eastern mass standing W. of the Volo Gulf, and extending as far W. as Domoko; it stretches from Phersala on the N. to the Malian Gulf on the S. This mass contains several summits of over 4,000 ft. Its highest point is 6,000 ft. (2) A much narrower mass, consisting of a ridge connecting the eastern mass with the main chain of Pindus. This is very much lower than the other, its highest points running to not more than 2,600 ft.

Through the eastern mass not a single path leads which is practicable for artillery. The Turks tried some experiments this way in 1897, but gave up the attempt as hopeless.

The only good passage through the whole chain is the Phourka Pass, between Domoko and Lamia. The roadway is passable, and can be used both by artillery and transport. It is commanded by Domoko, the position of which is very strong, owing to the steepness with which the ground slopes from it to the plain on the N. The weak defence of the Greeks in 1897 did not do justice to the strength of the position. W. of Domoko various comparatively easy mountain paths, practicable for infantry, lead across the chain, and by these the position at Domoko may be turned.



Finally there is not, save when the ground is hard in the dry period of summer, any practicable military route from Trikkala SE. through the western plain. In the war of 1897 Turkish troops coming from Trikkala to Phersala made the circuit by the central ridge of Thessaly.

### *Supplies*

The possibilities of obtaining local supplies are much greater in this region E. of the Pindus than on the western side of the chain. The plains of Thessaly are capable of growing large quantities of corn, so much so that twenty years ago it was reckoned that, were their capacity used to its full extent, Greece would be independent of foreign supplies in this respect. But at this time their capacity was not fully utilized, because cheap corn from Russia and the United States was obtainable at a price with which the Thessalian grower could not compete with profit. In 1899 quite large areas of the western plain of Thessaly were either lying fallow or were being utilized with very moderate success for forms of cultivation other than that of grain. The scarcity of corn which has been recently reported in Greece (March, 1916) suggests that this state of things has not been greatly changed. But of the natural capacity of Thessaly for the production of cereals there can be no doubt ; and even if the state of things described above has continued to the present day, the grain produce of the land must still be considerable. Recent experience will probably lead the Government of Greece to do all in its power to promote the Thessalian corn trade. But on the question of obtaining this corn on the spot, it must be remembered that only a portion of it is required for local consumption, and the rest is exported, mainly to other parts of Greece. The harvest is somewhat later than in S. Greece. It may be generally said to fall in June. Within a very short time the corn which is not required locally passes by export out of the country, and consequently an abundant local supply could only be reckoned upon in the months immediately following harvest.

## THE MACEDONIAN PLAIN AND SURROUNDING REGIONS

*The River Struma*

The dividing line between the regions which have been already described and the northern and eastern parts of the area dealt with in this volume may be said to be the S. edge of the Macedonian plain. Just as the south-western region is divided by nature into an eastern and a western section, so is this region of the north and east. In the former case the dividing line is a mountain chain, the Pindus ; in the latter it is a river, the Struma, the ancient Strymon.

From the very dawn of history up to the present day this river has been often a political, and to a great extent a racial frontier. In Greek days it was the boundary between the Macedonian and Thracian peoples, and, until the expansion of Macedonia as a kingdom, the eastern frontier of that state. In the days of the Roman republic it formed the eastern limit of the province of Macedonia, in so far as that province can be said to have had any boundaries at all. Under the Roman Empire, indeed, when provincial frontiers were organized, a piece of Thrace east of the river was included in Macedonia. In modern Turkish times it was the real, though not the administrative, boundary between Macedonia and Roumelia. It is thus apparent that the line of this river forms not merely a convenient, but a very real physical boundary between the regions lying E. and W. of it. The reason for this will appear when the main lines of the topography of the region come to be discussed.

*The Plain of Macedonia and Salonica*

The chief physical features of the western of these two regions are distributed like the parts of a fan. The hinge is represented by Salonica. The plain of Macedonia represents that part of the rays which form the handle ; and the surrounding mountain belts the outer edge of the fan.

The plain of Macedonia is and has always been both physically and politically the all-important region of the Western

Balkan Peninsula. Its average fertility, in spite of the deductions which have to be made for certain large areas of permanent marsh to the W. of Salonica, is very great. Under ordered government it would develop into one of the richest regions in Europe. It has, in consequence, always been coveted by the various races which have inhabited the Balkan peninsula, and, indeed, as recent history shows, by some which have not. Acting as a sort of magnet for conflicting elements, its history has been a somewhat stormy one. Apart from that, the fact that Salonica is the only first-class port outside the Dardanelles on the S. coast of the Balkan peninsula is of itself quite enough to make the region of first-class importance in Balkan geography and Balkan politics. But this does not exhaust the importance of Salonica. There are two main routes in the Balkan Peninsula. From Belgrade they coincide up the Morava valley as far as Nish. Thence the eastern one passes up a tributary of the Morava, and over a watershed into the plain of Sofia, in the upper Isker basin. It then runs over the watershed of the upper Maritsa and down that river to Philippopolis and Adrianople, and so to Constantinople. It is the route taken by the Belgrade-Constantinople railway. The western route, leaving the other at Nish, goes up the upper Morava, and then across the watershed into the upper basin of the Vardar, and down that river valley, past Üsküb, to Salonica. It is the route taken by the Nish-Salonica railway.

### *Regions West, North and East of the Plain*

This plain of Macedonia is separated from the Adriatic by some of the most difficult country in Europe. Not merely one, but several parallel chains of the northern Pindus separate it from that coast. These chains are peculiarly rugged and difficult in nature, and are of considerable height. Various peaks of them rise above 8,000 ft. ; considerable stretches of their ridges are above the 6,500 ft. line ; and quite large areas of the region stand at over 5,000 ft. They contain one fertile plain of some extent, that of Monastir, and various

fertile valleys ; but otherwise the region is most forbidding. After this it is perhaps unnecessary to say that the Macedonian plain looks anywhere rather than west for its communications with the outside world. Except in Roman times no through route of anything resembling a first-class character has ever developed through this tangle of mountains. The Romans were under the necessity of developing one in order to provide a route between Italy and the empire in the East ; and they constructed the celebrated Egnatian way from Dyrrhachium, the modern Durazzo, to Salonica and beyond, a road which, so far as it is possible to trace it at the present day, went from Durazzo by way of Ochrida, Monastir, and Ostrovo to the Macedonian plain.

To the N. of the plain is a region only a little less formidable than that to the W. The mountains are not indeed so lofty, but they are but little less rugged. But this region, as we have said, is pierced by the western route from Belgrade. Still the Vardar valley, which it follows, is very narrow, mostly little more than, and sometimes actually, a defile. It is reputed to be very defensible ; but the strategy of the war of 1912 showed clearly that the strong defensive positions on the upper course of the Vardar could be turned from the east. The Serbian army attacked the highest part of the river valley with the obvious intent to work down its length from N. to S., while the Bulgarians fell on the right flank of the defending Turkish army, making their way through passes of the mountains to the E. The Turkish defence collapsed so quickly that the design was not properly tested ; but enough was done to show that the reputed impregnability of this valley was fallacious.

#### *Routes in the Regions surrounding the Plain*

The country east of the Macedonian plain, lying, that is to say, between it and the Struma river, presents three main features : (1) on the N., a mass of hills of no great height relative to the mountain masses to the N. and W. of the plain ; (2) a valley largely filled with lakes, which cuts almost clean



across the Chalkidike peninsula at its junction with the mainland ; (3) the mountainous Chalkidike peninsula itself.

There are two main routes through this eastern region :—

(a) N. of the mass of hills (see (1), above) where a low col separates the Macedonian plain from that of the valley of the Struma ;

(b) Along the lake valley (see (2), above).

Through the former of these passages runs the railway from Salonica to Constantinople. This railway was made more for strategic than for commercial reasons ; and that is why the circuitous route through this northern passage was chosen for it rather than the more direct and probably easier route along the valley by the lakes. Had the latter been adopted it would have been necessary to have carried the line immediately along the coast from the Chalkidike peninsula to the mouth of the Struma. That is exactly what the Turkish Government wished to avoid. With regard to this railway generally it will be noticed that throughout its whole length it is carried along a line at some distance from the coast. The fear was that in time of war it would, if taken along the coast at any point, be liable to be cut by any power commanding the sea.<sup>1</sup>

With regard to the characteristics of this northern route, it appears, as seen from the railway, to offer no serious physical difficulties between Salonica and Seres on the Struma. The southern route by the lakes was in ancient times part of the great and important highway which ran along the N. coast of the Aegean. After passing the lakes it ran E. along the coast between the Chalkidike peninsula and the mouth of the Struma. It then went a few miles up that river and crossed it at Amphipolis, which stood near the modern Yeniklaf, on

<sup>1</sup> This came out in the present writer's own experience. Only a few years ago he applied to the Turkish Government for leave to make a survey for historical purposes at the mouth of the Struma river. Unusual difficulties arose. These were overcome, but he was informed, by one who had every reason to know the inwardness of the affair, that they had arisen owing to the fear entertained by the Turkish Government that England might, in case of trouble arising between her and Turkey, land a force at the mouth of the Struma and seize on this very important strategic position.

the short stretch of river between the lowest of the Struma lakes and the sea. It is at the present day a good route, though it cannot be called a made road, unless, as is possible, the Greeks have improved it in the last few years. It is probable that in summer it could be used for artillery. What its state in winter may be is, as usual with Balkan tracks, quite another question.

The Struma valley has to be regarded from two points of view :

- (1) As a passage from S. to N.
- (2) As a defensive position on a line crossing it from W. to E. or E. to W.

It is by nature a very important line of communication from S. to N. Little has been heard of it in this respect of recent years, because the political relations between Turkey and Bulgaria have been such as to make its use rare, and consequently to obscure the fact that it offers great natural advantages as a line of passage northwards. Even before the days of Bulgarian independence it was little known, because it passes through a region the inhabitants of which are not accustomed to welcome the stranger from outside. But it is clear that in ancient times it was a most important trade route between the Aegean and central Europe. In the third century before Christ it was used for traffic in the gold of what is now western Transylvania (in eastern Austria). Coins of Thasos, the island off the coast close to the S. end of the route, have been found in large quantities in this gold region far away in central Europe. The line of communication ran right up the Struma to its source ; then over into the plain of Sofia ; then through the pass known as Trajan's Gate, in the Balkans near to Sofia ; then to the Danube and across it up the Aluta river to the Rothethurm Pass in the Carpathians ; and so through Transylvania to the gold region.

As a line of defence against advance from E. to W. or W. to E., the nature of the valley, especially the lower part of it, is quite clear on the map. The river itself is deep in winter, and can only be passed at certain places in summer. More-

over, its lower course is encumbered by lakes and marshes. The formidable character of these may be judged from the fact that in ancient times the possession of Amphipolis was regarded as affording practically complete command of the passage of the river.

Details of the routes of the greater part of this region are given in this book ; but it may be well to give a list of those which, as far as we know, were used by large bodies of troops in the war of 1912. It will be understood that, under the circumstances under which that war was fought, the information is by no means so full as it might be ; but in the cases mentioned the forces which traversed the routes seem to have been accompanied by artillery of some kind. References to the itineraries covered in this volume are given ; for others, see *Handbook of Serbia, &c.*

(A) To the S. of the plain :

1. Katerini-Milovo-Plati-Salonica. (Route 1.)
2. Kozani-Verria (Karaferia)-Salonica. (Route 50.)

(B) To the W. of the plain :

1. Monastir-Ostrovo-Vodena-Salonica. (Route 65.)
2. Monastir-Prilip-Veles. (Routes 71, 74.)
3. Monastir-Tetovo (Kalkandelen)-Üsküb. (Route 69.)
4. Monastir-Brod-Badiška-Üsküb. (Southern part corresponds to S. part of preceding Route. See further Route 73.)
5. Prizrend-Bitinje-Kačanik-Üsküb.

(C) N. of the plain :

1. Novibazar-Mitrovica-Ipek-Jakova-Prizrend.
2. From Jakova and Prizrend bodies of troops penetrated into N. Albania by way of Fyertha and Rogova, but the greatest difficulty was experienced in transporting artillery along these routes.
3. Kuršumlje-Prepolac-Pristina-Gilan- . . . ?
4. Nish-Leskovac-Vranja-Kumanovo-Üsküb.
5. Üsküb-Veles (Route 79) and down the Vardar valley.

6. Kustendil-Egri Palanka-Kumanovo. (Routes 86, 85.)
7. . . . ?-Kratovo-Veles. (Routes 84, 80.)
8. . . . ?-Kočana-Ishtib-Strumitsa-Vardar valley at Davidovo. (Routes 89, 79.)

(D) SE. of the plain :

1. Gulf of Cassandra-Polygyros-Galatista (see Section on *Chalkidike*).

#### THE REGION EAST OF THE STRUMA

That region east of the Struma which is included in the area with which this volume deals is bounded on the N. by the Rhodope range, on the east by the Maritsa river, on the west by the Struma, and on the south by the Aegean Sea. The Rhodope determines the physical geography of the region.

Rhodope consists of two ridges which branch off from the NW. corner of this region, where the range has its highest summits. In this corner are three peaks, the heights of which are 9,570, 8,960, and 8,830 feet respectively. Quite a considerable area of this particular part of the range stands at over 6,500 feet. From this culminating point the main ridge of the chain runs ESE. with a general tendency to decline in elevation, though at its farthest extremity near the mouth of the Maritsa the peak of Sabhana Dagħ has a height of nearly 4,000 ft. The shorter ridge runs just E. of S. from the culminating point, also tending to decline in elevation, though it maintains a considerable average height. This ridge separates the valley of the Struma from that of the Myesta. The valley of the latter river separates the two ridges of the Rhodope.

The whole region is mountainous save for a somewhat extensive marshy plain on the coast formed on the mouths of the Myesta and of three small rivers which enter the sea just to the E. of it. Though the great trans-continental railway to Constantinople edges it closely on the N., this corner of Europe has been for years past less visited even



than Albania and Epirus. Rhodope has the reputation of being one of the most rugged and impassable regions of Europe. Rugged it certainly is, as the present writer saw from Philippopolis. That was only a few years ago, and the reputation of the region may be gauged by the fact that the two sportsmen who made the expedition were accompanied by over 100 soldiers. Inaccessible as the region is, its inhabitants have been still more so. The population of the mountain is, or was, composed of Pomak Bulgars, Bulgarians who have embraced Islamism. They dislike strangers ; but they absolutely loathe the Christian Bulgar. That is why the nearest neighbour of Rhodope knew till recently nothing about the region ; whether the Bulgarians since their acquisition of the district have tamed, or, as is more probable, driven out their hostile kinsmen, is not known. It is reported that they have baptized them—probably for political rather than religious purposes. There used to be a large Greek element in the coast region ; but this has probably to some extent withdrawn west of Kavalla to escape Bulgarian rule. There was also a large Turkish element, which is reported to be gradually withdrawing.

Balkan governments, though, as a rule, quite prepared to treat with fairness strangers from outside the Balkan region, do not like the presence within their frontiers of inhabitants drawn from other Balkan races, because their presence is but too apt to be an excuse for interference from outside.

### *Routes*

The one natural through route of the country is the coast route to which reference has been already made. Its course is given in a succession of routes in this book (Nos. 96, 122, 124, 131, 138). It runs from Seres to Dedeagach *via* Drama, Kavalla, Xanthi, Gumuljina, Maronia, and Makri.

Of the roads from the sea to points inland beyond Rhodope but little information can be given. It may be said with confidence that till recently there were no made roads. Such routes as can be traced are given in detail in this book ;

but one or two general remarks as to the lines of communication may be useful.

In the war of 1912-13 the Bulgarians invaded this region along two, if not three, lines. The intent was, of course, to cut the lines of communication between the Turkish armies in the west and those in the region of Constantinople. The largest body of troops seems to have used the old line of communication from Sofia southwards along the Struma valley, which passes just W. of the highest mass of Rhodope. Some of these troops seem—the reports, as might be expected, are not very precise—to have passed down the Struma valley to Seres ; but the main body seems to have turned over a comparatively low col to the south of the high peaks of Rhodope into the upper valley of the Myesta river, and then to have gone down to Nevrokop, and so on towards Kavalla. It is noteworthy that information has been recently received (March, 1916) that the Bulgarians are making a road to carry heavy artillery along this latter line.

From Philippopolis a small body of troops invaded a peninsula of Turkish territory which at that time extended northwards into Bulgaria down the valley of a southern tributary of the Maritsa to within a few miles of Philippopolis itself. But the imperfect reports do not make it clear whether this part of the army ever made its way through the Rhodope range at this point.

East of this a much larger body of troops crossed the much less elevated part of the Rhodope, starting from a base at Haskovo, and penetrating first into the upper basin of the Arda, a large tributary of the Maritsa, and then southwards to Gumuljina in the coast district. Their object appears to have been Dedeagach.

## CHAPTER II

### CLIMATE

General conditions—Meteorological stations—Temperature—Frost—Humidity—Rainfall—Mist and Fog—Winds—Thunderstorms—Cloudiness—Conditions affecting aviation—Tables.

#### GENERAL CONDITIONS

THE Balkan range of mountains has a dominating influence upon the climate of the region to the southward since it stands as a barrier between the northerly winds of Roumania and the fertile Roumelian plain to the south. Here an area is found which, except in the spring months, enjoys an abnormally warm climate under the shadow of the mountains, from which warmed and dried air currents descend after depositing a large proportion of their moisture on the northern slopes of the range. The western end of the plain is shut in by the mountainous country of western Bulgaria and Serbia, which forms a much eroded plateau on which the winter conditions are severe.

At Sofia in the west (1,804 feet), the level country is of small extent, and to the north-west and south the mountainous country of western Bulgaria hems it in. Climatically this place is more conveniently grouped with other hill-stations than with the places in the Roumelian plain. On the south side of this plain the Rhodope Mountains extend in a southeasterly direction from Serbia and western Bulgaria to Adrianople, while their southern spurs reach the northern coast of the Aegean Sea.

Although this part of the Balkan peninsula is situated in the same latitude as the southern portion of Italy, and is one of the main land masses which project into the Mediterranean area, its climate is much more nearly related

to that of Eastern Europe than to that of the Mediterranean. Extremely low temperatures are experienced in the winter months at the hill stations, and even in the Roumelian plain the cold is often intense; snow lies on the ground for two and often three months, and bitterly cold northerly and north-easterly winds sweep down from the high plateau region on to the low-lying coastal plain. The summer is hot, and in the plain fairly high temperatures are recorded. While the rainy season of the Mediterranean is the winter, and the summer months have a very greatly diminished rainfall, the Balkan region enjoys a fairly even distribution of rain throughout the year. In June, and again in November, somewhat higher amounts are usually recorded than at other times of the year, but the difference is not very great.

The Aegean coast-line forms a transition zone between the well-defined continental climate of Bulgaria with its extremes of temperature, its severe winter, and its evenly distributed rainfall, and the Mediterranean with its hot summer with a scanty rainfall, and its mild winter with a rainy season.

The normal conditions which control the air circulation over Bulgaria and the neighbouring regions in winter are first the occurrence of a vast area of high atmospheric pressure over Central Asia which extends to Eastern Europe, and secondly an area of low pressure which corresponds closely with the Mediterranean. Consequently, winds from the northern quadrants are the rule, and these are usually dry, and associated with clear and calm nights, when the temperature, especially on the high grounds, falls very low. In summer an area of low pressure extends from the eastern Mediterranean to the Persian Gulf, and though the atmospheric pressure over Europe may not be very high, there is a tendency for northerly and north-westerly winds to prevail over the Balkan peninsula and the Aegean Sea. Southerly winds occur at all seasons, but usually in connexion with the passage of depressions over the peninsula.



## METEOROLOGICAL STATIONS

In the narrow valleys of the deeply eroded Bulgarian and Serbian highlands it is always difficult to obtain satisfactory sites for meteorological stations, which have usually to be established in places which are convenient of access rather than especially suited for obtaining observations which shall be typical of that part of the country. The direction of the valley in which the station lies and the trend of the neighbouring mountain ranges usually affect the circulation of air at the station, and may cause it to differ considerably from the general movement of air over the region. There are usually too few meteorological stations to give a detailed and accurate picture of the local variations of temperature, rainfall, &c., and we must be satisfied with the general representation which a limited number of stations can give, and in which the peculiarities of an individual station may be given a greater significance than they really possess.

Of the 15-20 meteorological stations in Bulgaria, five have been selected from those which are situated in the western mountain region and in the Rhodope range to represent the high-level conditions, and five others in the Roumelian plain, where more favourable climatic conditions prevail.

The observations which have been made at the following stations will furnish a satisfactory collection of material from which the climate of the country may be deduced:

	<i>Altitude.</i>	<i>Latitude,</i>	<i>Longitude,</i>	<i>Remarks.</i>
		<i>N.</i>	<i>E.</i>	
<b>Group I :</b>	<i>Feet.</i>			
Chepelare . . .	3,625	41 44	24 42	High-level Stations.
Samokov . . .	3,117	42 20	23 34	
Rilski Monastir . .	3,855	42 8	23 21	
Kustendil . . .	1,722	42 17	22 41	
Sofia . . .	1,804	42 42	23 20	
<b>Group II :</b>				
Burgas . . .	49	42 29	27 29	Roumelian Plain.
Stara Zagora . .	768	42 25	25 28	
Kazanlyk . . .	1,220	42 37	25 24	
Haskovo . . .	640	41 56	25 25	
Philippopolis . .	525	42 9	24 45	

	<i>Altitude.</i>	<i>Latitude,</i>	<i>Longitude,</i>	<i>Remarks.</i>
	<i>Feet.</i>	<i>N.</i>	<i>E.</i>	
<b>Group III :</b>				
Monastir	2,034	41 1	21 23 }	Western Macedonia.
Üsküb	804	42 0	21 26 }	
<b>Group IV :</b>				
Ragusa	49	42 38	18 7 }	Adriatic Coast.
Scutari	33	42 3	19 30 }	
Durazzo	22	41 19	19 28 }	
Valona	33	40 29	19 30 }	
<b>Group V :</b>				
Constantinople	246	41 2	28 28 }	North Coast of Aegean Sea.
Kavalla	39	40 55	24 22 }	
Salonica	7	40 39	22 57 }	

The first group includes the stations in the more mountainous part of the country. Chepelare is in the Rhodope range, almost due north of Kavalla, and about 55 miles distant (direct). Samokov is south-east, and Rilski Monastir nearly due south of Sofia, and about 30 and 40 miles distant respectively; Kustendil is about 30 miles south-west of Sofia.

In the second, which contains stations representing the climate of the Roumelian plain, Philippopolis and Haskovo are on the south side of the plain, while Kazanlyk is at the foot of the Balkan range. Stara Zagora is some twenty miles to the south-east at the foot of a small group of hills lying in front of the Balkans. Burgas is a port on the Black Sea.

The climate of western Macedonia is represented by Üsküb and Monastir, Group III, the only stations from which observations extending over any adequate period are available.

The conditions which they represent may be held to continue westwards until the influence of the Adriatic gives rise to a milder and less rigorous climate, and the four stations of Ragusa, Scutari, Durazzo, and Valona are included in Group IV so far as data from them are available.

The other coast-line of Macedonia is represented by Salonica and Kavalla, Group V, to which is added Constantinople, where the climatic conditions are very similar to those of the other two places in this group.

## TEMPERATURE

In summer high temperatures occur especially at places in the Roumelian plain and at Salonica, since this town lies under the lee of the hills which keep off the northerly breezes. June, July and August are the hottest months, a sensible reduction of temperature occurring in September.

In the Roumelian plain Stara Zagora is especially mentioned as having a very warm summer climate in which the fig and the sugar-cane ripen in gardens where irrigation is practicable.

In winter very low temperatures occur over all Roumelia and Macedonia, especially in the hill districts. The temperature of  $0^{\circ}$  Fahrenheit is not infrequently recorded, especially in the mountains, and it is only on the shores of the Aegean Sea and the Adriatic that milder conditions occur. Snow falls frequently in December, January, and February, and occasionally in November and March. The temperature begins to rise appreciably in March, and in April the climate is generally mild.

The mean temperature of the various stations and the mean values for each district are given in Table I (p. 54). July and August are the hottest months, there being everywhere but little difference between them. The lowest mean temperature occurs everywhere in January.

At the hill stations of Bulgaria the lowest mean temperatures are recorded, viz.  $25^{\circ}$ – $27^{\circ}$  F., as compared with  $41^{\circ}$  F. on the Aegean Coast. February is from  $2^{\circ}$  F. to  $4^{\circ}$  F. warmer, but the most rapid increases take place between March and April, and April and May. In the summer the difference in the mean temperature of different districts, which is so noticeable in winter, practically disappears, for while the Bulgarian hill stations have a mean temperature in July of  $65^{\circ}$  F., that of all the other districts lies between  $73^{\circ}$  F. and  $77^{\circ}$  F.

A well-marked decrease of temperature occurs everywhere in September and October, amounting to about  $6^{\circ}$  F. to  $8^{\circ}$  F.

	<i>Altitude.</i>	<i>Latitude,</i>	<i>Longitude,</i>	<i>Remarks.</i>
	<i>Feet.</i>	<i>N.</i>	<i>E.</i>	
<b>Group III :</b>				
Monastir . . .	2,034	41 1	21 23 }	Western Macedonia.
Üsküb . . .	804	42 0	21 26 }	
<b>Group IV :</b>				
Ragusa . . .	49	42 38	18 7 }	Adriatic Coast.
Scutari . . .	33	42 3	19 30 }	
Durazzo . . .	22	41 19	19 28 }	
Valona . . .	33	40 29	19 30 }	
<b>Group V :</b>				
Constantinople .	246	41 2	28 28 }	North Coast of Aegean Sea.
Kavalla . . .	39	40 55	24 22 }	
Salonica . . .	7	40 39	22 57 }	

The first group includes the stations in the more mountainous part of the country. Chepelare is in the Rhodope range, almost due north of Kavalla, and about 55 miles distant (direct). Samokov is south-east, and Rilski Monastir nearly due south of Sofia, and about 30 and 40 miles distant respectively; Kustendil is about 30 miles south-west of Sofia.

In the second, which contains stations representing the climate of the Roumelian plain, Philippopolis and Haskovo are on the south side of the plain, while Kazanlyk is at the foot of the Balkan range. Stara Zagora is some twenty miles to the south-east at the foot of a small group of hills lying in front of the Balkans. Burgas is a port on the Black Sea.

The climate of western Macedonia is represented by Üsküb and Monastir, Group III, the only stations from which observations extending over any adequate period are available.

The conditions which they represent may be held to continue westwards until the influence of the Adriatic gives rise to a milder and less rigorous climate, and the four stations of Ragusa, Scutari, Durazzo, and Valona are included in Group IV so far as data from them are available.

The other coast-line of Macedonia is represented by Salonica and Kavalla, Group V, to which is added Constantinople, where the climatic conditions are very similar to those of the other two places in this group.



## TEMPERATURE

In summer high temperatures occur especially at places in the Roumelian plain and at Salonica, since this town lies under the lee of the hills which keep off the northerly breezes. June, July and August are the hottest months, a sensible reduction of temperature occurring in September.

In the Roumelian plain Stara Zagora is especially mentioned as having a very warm summer climate in which the fig and the sugar-cane ripen in gardens where irrigation is practicable.

In winter very low temperatures occur over all Roumelia and Macedonia, especially in the hill districts. The temperature of  $0^{\circ}$  Fahrenheit is not infrequently recorded, especially in the mountains, and it is only on the shores of the Aegean Sea and the Adriatic that milder conditions occur. Snow falls frequently in December, January, and February, and occasionally in November and March. The temperature begins to rise appreciably in March, and in April the climate is generally mild.

The mean temperature of the various stations and the mean values for each district are given in Table I (p. 54). July and August are the hottest months, there being everywhere but little difference between them. The lowest mean temperature occurs everywhere in January.

At the hill stations of Bulgaria the lowest mean temperatures are recorded, viz.  $25^{\circ}$ – $27^{\circ}$  F., as compared with  $41^{\circ}$  F. on the Aegean Coast. February is from  $2^{\circ}$  F. to  $4^{\circ}$  F. warmer, but the most rapid increases take place between March and April, and April and May. In the summer the difference in the mean temperature of different districts, which is so noticeable in winter, practically disappears, for while the Bulgarian hill stations have a mean temperature in July of  $65^{\circ}$  F., that of all the other districts lies between  $73^{\circ}$  F. and  $77^{\circ}$  F.

A well-marked decrease of temperature occurs everywhere in September and October, amounting to about  $6^{\circ}$  F. to  $8^{\circ}$  F.

in each month, while in November, with the commencement of winter conditions, a more rapid decrease occurs.

Under the continental conditions which prevail in the Balkans, with corresponding temperatures low in winter and high in summer, the maximum range of temperature is always considerable. The difference between the highest and lowest temperatures which are to be anticipated in each month give the maximum monthly range of temperature, and this is set out in Table II (p. 56).

The range of temperature is greatest at the hill stations in January, when, as has been already said, extremely low night temperatures prevail. In the Roumelian plain the maximum range falls in October, when cold nights begin to occur, while the day temperatures are still fairly high. Western Macedonia (Group III) experiences a range which is very similar to that of the Roumelian plain.

On the coasts the range is naturally much less, on account of the moderating influence of the waters of the Mediterranean, which in winter are from 6° F. to 8° F. and even 10° F. above the temperature of the coastal towns.

### FROST

Under the conditions which prevail in the Balkan region north of the Vistritza river during the winter months, the prevalence and the continuance of frost is a factor of considerable importance. In Table III (p. 57) the average number of days is given on which the temperature fell below 32° F., and also, for certain stations, the average number of days in each month on which it did not rise above freezing-point throughout the day. At the hill stations frost is of daily occurrence during December, January and February, and in the Roumelian plain it occurs on rather more than half the days on the average.

## HUMIDITY

The mean relative humidity for the day is given in Table IV (p. 58), from which it will be seen that December has the highest mean value. The hot and dry summer climate of the Roumelian Plain has already been referred to. The prevailing dry northerly winds of the summer months are the cause of comparatively low values for the humidity at Constantinople and also at Salonica, where the maximum temperature in summer is abnormally high as has been mentioned above.

## RAINFALL

The first three groups, which include the stations of Roumelia and Macedonia, show the same character of distribution of the rainfall. May or June and October or November are the two periods of heaviest rainfall, but in no month does so little as an inch of rain fall. March and September are the driest months, especially the latter. The mean rainfall for each month is given in Table V (p. 60), where the even distribution of rainfall in Bulgaria throughout the year is clearly shown, as compared with the well-defined winter rainy season of the Adriatic and Aegean coasts with their summer minimum rainfall of less than one inch.

## SNOW

Snow may be expected at any time from November to April, and in December, January, and February it falls frequently. In the hill country one day in three represents the average frequency of snowfall in these three months, while in the Roumelian Plain it is about one day in six.

## WINDS

Any general account of the wind directions of Roumelia and Macedonia that will give an accurate representation is

difficult, probably on account of the local peculiarities of some of the stations. A great preponderance of north-westerly and south-easterly winds at Üsküb is an instance of this.

In the summer the general flow of the air currents is from a northerly or north-westerly direction, but their predominance is not strongly marked, and winds are recorded with a fair frequency from all directions. At the coast of the Aegean Sea, and at Constantinople, the northerly and north-easterly winds (the 'Etesian' winds of the Greeks and the 'Meltemi' of the Turks) become more definitely the prevailing wind. At almost all stations except those on the Aegean coast, a large percentage of the observations record calms, so that light to moderate winds ordinarily prevail.

In the winter the conditions are different, for the Mediterranean is now an area of low pressure, and very high pressure frequently occurs in Southern Russia and over Roumania and the Balkan region. Under these conditions light winds, clear skies, and low night temperatures prevail over the high plateau regions, and although the winds here attain no great strength the cold air pours down from the Balkans into the low-lying area of the Aegean Sea as a gale which often continues for three, four, and even six days.

With the passage of depressions across the Balkans in winter strong southerly and south-westerly winds occur, with mild cloudy weather and often heavy rain, but these conditions cease as the depression moves away to the eastward and cold north-westerly winds, often accompanied by snow-showers, succeed them. At this season gales are rather more frequent than in summer, but even in winter the proportion of calm days is very considerable.

At coast stations a daily alternation of winds occurs throughout the summer months. A land breeze blows gently seawards from shortly after sunset until about sunrise. A few hours of calm then usually occur, after which the sea-breeze sets in, increases to a moderate breeze by the afternoon, and dies away by sunset.

The total numbers of winds of gale force which have been



recorded in eleven years show that the average is small; only at the hill stations in the winter months do these amount to more than one per month on the average.

### THUNDERSTORMS

As is the case generally in Central Europe, the greatest number of thunderstorms occurs in the summer months. This prevalence of thunderstorms during the summer explains the well-maintained rainfall at that season with a maximum in June, since heavy falls of rain occur in connexion with the thunderstorms, though the rain may be falling for only a few hours.

The high temperature, light winds, and the rapid condensation which occurs in mountain regions are all favourable to the development of thunderstorms, but it is noticeable that the number recorded in the Roumelian Plain is about half as many again as in the mountains. Short periods of high temperature and low humidity, with calms or light breezes, are terminated by a more or less violent thunderstorm which is succeeded by cooler, moister, and more pleasant weather for a while.

### CONDITIONS AFFECTING AVIATION

Among the meteorological conditions which have an intimate relation to the requirements of aviators is the clearness of the atmosphere. Mist and fogs are most frequent during the winter months, but local conditions are all-important and no general guide to the prevalence of fog can be given.

On account of the high temperature in summer in the Roumelian Plain and the light winds, dust and heat-haze are probably prevalent in the dry weather, though the continuance of the rain throughout the summer and especially in June should reduce considerably the difficulties arising from this cause.

In the neighbourhood of the mountain range local air currents of considerable strength will occur, but except during the passage of the depression in winter, when both southerly and north-westerly winds of gale force are not infrequent, moderate winds seem generally to prevail. The high frequency of thunderstorms in the Roumelian Plain during the summer months implies the occurrence of sudden and violent squalls of wind which accompany the development of thunderstorms, and in June at any rate they must be looked upon as a normal feature of the weather. See *Notes on Climate, etc., for the Eastern Mediterranean*<sup>1</sup>.

<sup>1</sup> In preparation.

## TABLES

## SUMMARY

TABLE	PAGE
I. Mean Temperature . . . . .	54
II. Mean Monthly Range of Temperature . . . . .	56
III. Number of Days of—	
(A) Frost (Minimum temperature less than 32° F.).	
(B) Frost all day (Maximum temperature less than 32° F.) . . . . .	57
IV. Relative Humidity . . . . .	58
V. Mean Monthly Rainfall . . . . .	60
VI. Mean Amount of Cloud . . . . .	62

TABLE I

## MEAN TEMPERATURE

	Jan. ° F.	Feb. ° F.	Mar. ° F.	April. ° F.	May. ° F.	June. ° F.
<b>Group I :</b>						
Chepelare . . . . .	25.5	30.0	34.5	43.3	52.5	57.4
Samokov . . . . .	25.3	28.8	34.5	43.9	54.0	59.5
Rilski Monastir . . . . .	27.3	29.8	34.3	42.6	52.7	56.8
Kustendil . . . . .	27.7	34.5	41.4	50.7	61.0	65.8
Sofia . . . . .	26.4	31.1	40.1	48.7	58.8	64.9
<i>Mean</i> . . . . .	26.4	30.8	36.9	45.8	55.8	60.9
<b>Group II :</b>						
Burgas . . . . .	33	34	41.5	51	61	68
Stara Zagora . . . . .	33	39	44	53	63	69
Kazanlyk . . . . .	31	36	42	51	61	67
Haskovo . . . . .	31	37	43	53	63	69.1
Philippopolis . . . . .	31	34	43.5	54	63	70.0
<i>Mean</i> . . . . .	31.8	36	42.8	52.4	62.2	68.6
<b>Group III :</b>						
Monastir . . . . .	30	37	45.5	52	61	67
Üsküb . . . . .	29.5	34	45.0	53	60	69
<i>Mean</i> . . . . .	29.8	35.5	45.2	52.5	60.5	68.0
<b>Group IV :</b>						
Durazzo . . . . .	47	48	52	58	65	72
Scutari . . . . .	39	42	49	57	65	72
Valona . . . . .	48	49	53	59	66	73
<i>Mean</i> . . . . .	44.6	46.3	51.3	58.0	65.3	72.3
<b>Group V :</b>						
Constantinople . . . . .	41	41	46	53	62	70
Kavalla . . . . .	42	44	49	57	68	74.5
Salonica . . . . .	41	45	49	58	68	76.5
<i>Mean</i> . . . . .	41.3	43.3	48.0	56.0	66	73.7



<i>July.</i> ° F.	<i>Aug.</i> ° F.	<i>Sept.</i> ° F.	<i>Oct.</i> ° F.	<i>Nov.</i> ° F.	<i>Dec.</i> ° F.
61·0	59·9	52·5	46·6	36·9	31·8
63·5	63·1	55·2	47·5	35·8	31·1
60·8	60·8	53·8	46·8	37·8	32·0
69·8	69·6	61·9	52·9	40·6	35·2
68·0	67·6	61·9	52·7	39·9	30·7
64·6	64·2	57·1	49·3	38·2	32·2

**Group I :**

Chepelare.  
Samokov.  
Rilski Monastir.  
Kustendil.  
Sofia.

*Mean.*

73	72	66	58	47	38
75	74·5	66	57·6	45	39
71	71	62	53·8	42	36
74	74	65	55·6	43·5	38
74	72·5	65	56·1	44	35
73·4	72·8	64·8	56·2	44·3	37·2

**Group II :**

Burgas.  
Stara Zagora.  
Kazanlyk.  
Haskovo.  
Philippopolis.

*Mean.*

72	71	65	56	45	35
74	72	66	57	43	34
73·0	71·5	65·5	56·5	44	34·5

**Group III :**

Monastir.  
Üsküb.

*Mean.*

77	76	70	64	55	49
78	77	70	61	50	44
77	76	71	65	57	50
77·3	76·3	70·3	63·3	54·0	47·7

**Group IV :**

Durazzo.  
Scutari.  
Valona.

*Mean.*

74	74·5	68	62	53	46
78	79	71	62	53	48
80	79	72	63·5	52	48
77·3	77·5	70·3	62·5	52·7	47·3

**Group V :**

Constantinople.  
Kavalla.  
Salonica.

*Mean.*

TABLE II

## MEAN MONTHLY RANGE OF TEMPERATURE

	<i>Jan.</i> ° F.	<i>Feb.</i> ° F.	<i>Mar.</i> ° F.	<i>April.</i> ° F.	<i>May.</i> ° F.	<i>June.</i> ° F.
Group I . . . .	51.7	48.0	47.9	49.8	45.6	44.3
Group II . . . .	47.1	42.7	43.2	46.9	43.6	41.4
Group III (Monastir) . .	46.2	43.9	41.9	46.2	43.6	43.7
Group IV (Durazzo and Valona) . . . .	30.2	27.9	28.7	27.7	27.8	26.8
Group V . . . .	33.7	32.6	33.0	35.9	35.0	32.4

	<i>July.</i> ° F.	<i>Aug.</i> ° F.	<i>Sept.</i> ° F.	<i>Oct.</i> ° F.	<i>Nov.</i> ° F.	<i>Dec.</i> ° F.
Group I . . . .	44.8	48.0	48.4	48.9	48.7	45.8
Group II . . . .	41.9	45.5	45.7	49.4	45.8	42.4
Group III (Monastir) . .	42.8	46.5	46.3	43.8	43.6	43.7
Group IV (Durazzo and Valona) . . . .	27.0	29.1	30.4	29.5	30.4	30.2
Group V . . . .	30.1	32.7	34.3	31.9	34.1	31.2

TABLE III

NUMBER OF DAYS OF (A) FROST ; (B) FROST ALL DAY.

*(Minimum temperature less than 32° F.)**(Maximum temperature less than 32° F.)*

	Nov.		Dec.		Jan.		Feb.		March.		April.	
	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.
Chepelare .	17	2	24	3	28	7	23	3	24	1	12	—
Samokov .	19	3	26	4	29	9	25	6	24	2	10	—
Rilski Monastir .	15	1	23	4	28	5	23	2	23	1	9	—
Kustendil .	12	5	18	2	28	9	18	3	13	—	3	—
Sofia .	14	2	21	6	28	11	21	5	15	1	4	—
Mean of Group I	15.4	2.6	22.4	3.8	28.2	8.2	22.0	3.8	19.8	1.0	7.6	—
Burgas .	6	1	12	2	22	5	14	2	8	1	11	—
Stara Zagora .	8	—	14	1	21	5	10	1	9	—	1	—
Kazanlyk .	11	1	17	1	27	5	16	1	12	—	2	—
Haskovo .	6	—	11	2	19	4	10	1	8	—	1	—
Philippopolis .	7	1	12	2	24	8	13	3	7	—	—	—
Mean of Group II	7.6	0.6	13.2	1.6	22.6	5.4	12.6	1.6	8.8	0.2	3.0	—

TABLE IV  
RELATIVE HUMIDITY

	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>April.</i>	<i>May.</i>	<i>June.</i>
	%	%	%	%	%	%
<b>Group I :</b>						
Chepelare . . .	75.5	76.5	75	71.5	72.5	75
Samokov . . .	77	79.5	77	70.6	69.3	71.3
Rilski Monastir . . .	72	71.4	71.4	67.5	70.6	70.2
Kustendil . . .	77.5	75.4	69	61.7	60.3	63.7
Sofia . . .	82	79	72	66	66	68
<i>Mean</i> . . .	76.8	76.4	72.9	67.5	67.7	69.6
<b>Group II :</b>						
Burgas . . .	80	83	81	77	79	77
Stara Zagora . . .	73	73	68	61	61	63
Kazanlyk . . .	77	75	69	63	64	66
Haskovo . . .	81	81.5	77.5	70	68.5	69.5
Philippopolis . . .	78	79.5	73	65	67.5	65.5
<i>Mean</i> . . .	78	78.4	73.7	67.2	68	68
<b>Group IV :</b>						
Durazzo . . .	77	74	73	72	73	71
<b>Group V :</b>						
Constantinople . . .	74	71	62	57	57	53
Kavalla . . .	84	85	83	83	81	79
Salonica . . .	70.8	71.3	68.3	66.1	64.3	60.7
<i>Mean</i> . . .	76.3	75.8	71.1	68.7	67.4	64.2



<i>July.</i> %	<i>Aug.</i> %	<i>Sept.</i> %	<i>Oct.</i> %	<i>Nov.</i> %	<i>Dec.</i> %
70.5	70	74.5	76.5	78.5	80
66	63.3	70.3	78.2	80	82
66	63.3	70.7	76	78	79.4
59.2	56.5	64	75	78.2	80.2
63	62	68	77	81	83
65	63	69.5	76.5	79.1	80.9

**Group I :**

Chepelare.  
Samokov.  
Rilski Monastir.  
Kustendil.  
Sofia.

*Mean.*

74	72	75	81	82	84
53	50	58	69	74	77
57	54	63	73	78	79
59.5	58.5	66.5	75.5	81.5	84.5
58.5	58	65	73.5	79.5	81
60.4	58.5	65.5	74.4	79	81.1

**Group II :**

Burgas.  
Stara Zagora.  
Kazanlyk.  
Haskovo.  
Philippopolis

*Mean.*

68	71	73	78	79	80
----	----	----	----	----	----

**Group IV :**

Durazzo.

53	53	55	63	71	74
75	75	78	82	84	85
54.2	57	62.4	71	73.6	74.5
60.7	61.7	65.1	72	76.2	77.8

**Group III :**

Constantinople  
Kavalla.  
Salonica.

*Mean.*

TABLE V  
MEAN MONTHLY RAINFALL (inches)

	<i>Jan.</i> ins.	<i>Feb.</i> ins.	<i>Mar.</i> ins.	<i>April.</i> ins.	<i>May.</i> ins.	<i>June.</i> ins.
<b>Group I :</b>						
Chepelare . . .	2.56	2.6	1.93	2.52	2.91	4.31
Samokov . . .	1.59	1.67	1.85	2.42	2.81	3.31
Rilski Monastir . . .	1.90	2.44	2.17	3.11	3.1	3.36
Kustendil . . .	1.94	1.9	1.22	1.78	2.84	2.38
Sofia . . .	1.50	1.42	1.46	2.05	3.39	3.23
<i>Mean</i> . . .	1.9	2.01	1.73	2.37	3.01	3.32
<b>Group II :</b>						
Burgas . . .	1.85	2.24	1.61	1.77	2.02	3.38
Stara Zagora . . .	1.46	1.85	1.69	1.58	2.44	3.35
Kazanlyk . . .	1.73	1.81	1.46	1.73	2.76	3.74
Haskovo . . .	2.52	2.32	2.13	2.05	1.88	2.94
Philippopolis . . .	1.89	1.81	1.61	1.85	1.68	2.65
<i>Mean</i> . . .	1.89	2.01	1.70	1.79	2.16	3.21
<b>Group III :</b>						
Monastir . . .	1.93	2.64	1.97	2.48	2.87	2.75
Üsküb . . .	1.42	1.10	0.79	1.69	2.28	2.24
<i>Mean</i> . . .	1.68	1.87	1.38	2.08	2.58	2.49
<b>Group IV :</b>						
Durazzo . . .	2.95	3.31	3.94	2.24	1.61	1.93
Scutari . . .	4.65	5.98	6.61	4.96	3.27	2.09
Valona . . .	3.98	3.50	4.21	2.32	1.42	1.89
<i>Mean</i> . . .	3.86	4.26	4.92	3.17	2.1	1.97
<b>Group V :</b>						
Constantinople . . .	3.42	2.72	2.44	1.65	1.18	1.34
Kavalla . . .	2.80	3.42	2.72	1.93	2.05	1.65
Salonica . . .	1.26	0.87	1.10	1.61	1.73	1.85
<i>Mean</i> . . .	2.49	2.34	2.09	1.73	1.65	1.61

<i>July.</i> ins.	<i>Aug.</i> ins.	<i>Sept.</i> ins.	<i>Oct.</i> ins.	<i>Nov.</i> ins.	<i>Dec.</i> ins.
3.64	1.97	1.54	1.69	2.64	<b>3.07</b>
2.70	2.0	1.76	1.81	<b>2.02</b>	1.22
2.40	2.12	1.63	3.06	<b>3.43</b>	1.9
2.37	2.35	1.48	2.15	<b>2.53</b>	1.68
2.83	2.07	1.59	<b>2.19</b>	1.93	1.42
2.79	2.10	1.6	2.18	<b>2.51</b>	1.86

**Group I :**

Chepelare.  
Samokov.  
Rilski Monastir.  
Kustendil.  
Sofia.

*Mean.*

1.55	1.18	0.87	1.98	<b>2.52</b>	2.05
2.15	1.61	0.99	1.58	<b>2.36</b>	1.81
2.23	1.51	1.76	2.08	<b>2.48</b>	1.69
1.63	1.32	1.13	1.42	<b>3.03</b>	2.20
1.65	1.23	1.34	1.24	<b>1.77</b>	1.34
1.84	1.37	1.22	1.66	<b>2.43</b>	1.82

**Group II :**

Burgas.  
Stara Zagora.  
Kazanlyk.  
Haskovo.  
Philippopolis.

*Mean.*

1.81	1.77	1.38	<b>3.38</b>	2.99	2.6
1.46	1.46	1.18	<b>2.09</b>	1.50	1.97
1.63	1.62	1.28	<b>2.74</b>	2.25	2.29

**Group III :**

Monastir.  
Usküb.

*Mean.*

0.47	1.89	1.73	7.13	<b>8.46</b>	7.32
1.54	1.02	3.46	7.4	<b>8.46</b>	6.22
0.51	1.89	3.97	5.39	<b>7.68</b>	5.75
0.84	1.60	3.05	6.64	<b>8.2</b>	6.43

**Group IV :**

Durazzo.  
Scutari.  
Valona.

*Mean.*

1.06	1.65	2.05	2.52	4.02	<b>4.80</b>
0.71	2.16	1.34	0.87	2.72	<b>3.23</b>
0.79	1.02	1.14	1.73	<b>1.97</b>	<b>1.97</b>
0.85	1.61	1.51	1.71	2.9	<b>3.33</b>

**Group V :**

Constantinople.  
Kavalla.  
Salonica.

*Mean.*

TABLE VI

MEAN AMOUNT<sup>1</sup> OF CLOUD

	<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>April.</i>	<i>May.</i>	<i>June.</i>
<b>Group I :</b>						
Chepelare . . .	5.2	6.0	6.0	5.8	5.2	5.4
Samokov . . .	6.1	7.2	6.7	6.7	6.2	5.9
Rilski Monastir . . .	5.5	6.4	6.2	6.4	5.8	5.6
Kustendil . . .	5.8	6.4	5.8	5.8	5.2	4.6
Sofia . . .	6.3	6.7	6.2	6.0	5.3	5.0
<b>Group II :</b>						
Burgas . . .	6.4	7.3	7.2	6.1	5.4	4.8
Stara Zagora . . .	6.0	7.1	6.7	6.2	5.7	5.5
Kazanlyk . . .	5.7	7.0	6.6	6.1	5.4	5.3
Haskovo . . .	6.4	7.3	6.9	6.2	5.9	5.6
Philippopolis . . .	5.7	7.0	6.5	5.6	5.3	5.2
<b>Group III :</b>						
Monastir . . .	6.4	6.6	5.6	5.6	5.3	4.6
Ūskŭb . . .	7.1	6.1	6.0	6.3	5.7	4.7
<b>Group IV :</b>						
Valona . . .	5.5	4.6	4.8	3.6	3.8	2.8
Durazzo . . .	4.4	4.1	4.4	3.9	3.2	2.4
<b>Group V :</b>						
Kavalla . . .	4.6	5.8	5.5	5.1	4.2	3.8
Salonica . . .	4.8	6.1	5.8	5.1	4.2	3.4

<sup>1</sup> Overcast sky = 10.



<i>July.</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>	
3.7	3.0	3.7	5.0	6.1	5.9	<b>Group I :</b>
4.6	3.6	4.5	5.7	6.8	6.9	Chepelare.
4.0	3.5	3.9	5.1	6.2	6.0	Samokov.
3.3	2.8	3.7	5.0	6.5	6.6	Rilski Monastir
3.4	2.7	3.6	5.2	6.7	7.0	Kustendil.
						Sofia.
3.0	2.4	4.0	5.6	6.8	7.0	<b>Group II :</b>
3.8	2.9	4.0	5.7	6.6	7.0	Burgas.
3.8	2.9	4.0	5.6	6.6	6.7	Stara Zagora.
3.9	3.0	3.9	5.5	7.0	7.1	Kazanlyk.
3.7	2.9	3.9	5.5	6.8	6.9	Haskovo.
						Philippopolis.
2.7	2.6	3.2	5.0	5.8	5.9	<b>Group III :</b>
3.4	3.4	3.3	5.0	6.6	6.8	Monastir.
						Üsküb.
1.4	1.9	3.1	4.6	6.2	5.7	<b>Group IV :</b>
1.1	1.5	1.8	3.9	5.0	5.1	Valona.
						Durazzo.
2.4	2.1	3.7	3.9	5.6	6.2	<b>Group V :</b>
2.0	2.1	3.1	4.7	6.2	6.0	Kavalla.
						Salonica.

## CHAPTER III

### HYGIENE

THE climate and conditions of the SW. Balkan peninsula are peculiarly dangerous to the careless, and comparatively harmless to those who will consent to take simple precautions.

South of the Cambunian range, the mountain chain which joins the mass of Olympus to the Pindus range, the winter cold, save high up on the mountains, would not be accounted severe by any one accustomed to an English winter. In Macedonia the cold of winter is reputed to be more severe; but the protection which the Balkan and Rhodope ranges afford from the bitter NE. winds, renders its climate far more mild than that of Bulgaria and Roumelia, or even of Serbia. (See *Climate*, p. 43.)

The Balkan peasants of this region of the SW. of the peninsula are very sensitive to cold, or have, at any rate, a marked dislike to it, and will sit round their fires at home and abstain from working in the fields on days which would be accounted comparatively mild in the winter season in England. Even in winter the sun may every now and then seem uncomfortably warm to an Englishman, so much so that he may welcome the possibility of sitting in the shade. Any Greek peasant who saw him doing so would excitedly call upon him to come out into the sun. The fact is that the difference between the temperature in the sun and in the shade is at this season so great, that sitting in the shadow of a wall or tree results in a rapid cooling down, which is at all times extremely dangerous in this climate. The result is almost always illness of some kind—usually a sore throat in the first instance—with a touch, more or less severe, of ague or pleurisy to follow. The

native knows the danger empirically. Even in the summer season when the heat is severe, he very rarely removes his coat, and, if he does so, he is accounted a foolish man.<sup>1</sup> It would be very necessary, in case of an army operating in this region in any season of the year, to insist on the men keeping on their coats. Violent diarrhoea is in hot weather apt to be one result of the neglect of this precaution, and the diarrhoea may in extreme cases take the form of dysentery. It is therefore wrong to neglect any diarrhoea : a man should treat himself for it with rest, warmth, a dose of chlorodyne, and a very light diet.

However oppressively hot the weather may be, some woollen material should always be worn next the skin. At the same time, cloth jackets or breeches are almost unbearable in a Greek summer, and only cotton khaki can be worn with any degree of comfort. Apart from the pains and penalties above mentioned, exposure to the Greek or Albanian summer sun without a jacket is apt to result in a blistered back, such as may develop into serious sores if a man be not in the best of bodily health.

Malaria is notoriously the disease which is the scourge of these lands. It is peculiarly prevalent in the plains, even in those which during the summer season are absolutely devoid of water. But the most dangerous places are, of course, the neighbourhoods of marshes or lagoons. In some regions it takes a far more deadly form than in others, though it may not, generally speaking, be more prevalent. Of late years, good work has been done in Greece, by Cardamatis and others, to reduce malaria by drainage of the surface-soil: e.g. the channel of the Ilissus has been deepened, so that the water runs without stagnating and forming pools for mosquitoes to breed in. The consequent reduction of malaria in such districts is very striking. It goes without saying, that the

<sup>1</sup> At Navarino in the terribly hot summer of 1895, when for seven weeks the thermometer never touched at any period in the 24 hours a point below 93° Fahrenheit in the shade, natives who were with the present writer used to gesticulate wildly if he took off his coat at any time of day in the open air, although he was wearing a flannel shirt.

best way to avoid malaria is to use a mosquito-net persistently and carefully, and to take quinine as a *protective* drug : say 5 grains daily, or 10-15 grains once or twice a week.

The natives are convinced of the efficacy of garlic or onions as a prophylactic. The peasants at Thermopylae, whenever it was their turn to spend the night in guarding their crops down near the river, invariably consumed unusual quantities of garlic. Onions are a very effective substitute for garlic, so the natives say, and so the present writer has found. But they have another and most important use. The great heat of the summer on the plains and in the limestone valleys reduces those who are exposed to it to a very limp state, and diminishes the capacity for bodily exertion. This is certainly counteracted by an onion diet, as any one can easily discover by positive and negative experiment. A man living on onion diet has, even on the hottest day, all the 'jump' in him that he would have on a bright frosty day in England. This may sound fantastic, but it is very true.<sup>1</sup> As far as onion diet is concerned, all that is absolutely necessary is that onions should play a prominent part in the midday and the evening meals, as, for instance, as the main component part of a salad.

It is a common fallacy, held by those without experience, that a man gets acclimatized to the great heat after a period of exposure to it. The contrary is the case, as is shown by the fact that the peasants feel the heat more than Western Europeans do when they are first exposed to it. It is not therefore to be concluded that days on which the natives seem oppressed by the heat are to be taken as unusually hot for the season of the year. It is suggested that some protection against

<sup>1</sup> The present writer's experience is as follows. Previous to 1899 he had suffered from malaria at Navarino and in various other places in the Near East. In this year he had to be encamped for five weeks near the wet marsh at Thermopylae, a notoriously unhealthy region even in Greece, especially at the period of the year, July to August, at which he was there. As he could not eat garlic, he was advised by the natives to eat onions. He took the advice. He never developed the slightest symptom of malaria. The same was the case in a more recent summer when he spent a week in the immediate neighbourhood of Lake Kopais, another notoriously dangerous region.



sunstroke may be afforded by a red or orange lining to the cap or sun-helmet, and by a strip of red or orange stuff, 3 inches wide, sewn inside the shirt, so as to cover the spine.

What has been said with regard to sitting in the shade in the winter season does not apply to the summer. There is no danger in sitting in the shade at this time of year, provided that the place chosen be not conspicuously damp.

Maize as an article of diet should be avoided. The natives are very fond of taking a maize cob, searing it in a flame, and eating the semi-roasted grains. This is a practice which British soldiers in the country would be very apt to copy. Maize, whether thoroughly cooked or not, may have a bad effect on those who are not accustomed to it as a diet. It may produce a rash which is like a mild form of prickly heat, and make the sufferer feel in other respects anything but fit.

In respect to the use of water, apart from obvious precautions of a general character, it is dangerous to drink river water which is discoloured. It is also most dangerous to touch the water which collects in pools in the otherwise dry river beds of the summer season, or that in the almost stagnant river courses of the alluvial plains.

The water difficulty is much more likely to be experienced in the plains than in the mountains. In prolonged droughts the springs in the plains are apt to give out, whereas those in the mountains rarely do. Many springs mentioned by those who have traversed the routes are noted in the itineraries. But a spring of a more or less copious kind may be found in or near every village, and may perhaps be used without filtering if the natives say the water is good. Any pollution of streams or springs used for drinking purposes is regarded as an unforgivable offence. The salvation of Greek and Albanian villages is the complete absence of all drainage and 'lavatory' arrangements. Also the inhabitants have a most wholesome fear of enteric, and are aware that carelessness in respect to the deposit of refuse near drinking water, &c., may produce it. Hence enteric is rare in the country, and has never become endemic. Still, there are other infections, beside enteric,

which may be conveyed in water ; and a man ought to be on the safe side, and not drink any water which has not been boiled. The flat taste of cold boiled water can be improved by shaking it up, in a corked bottle, with fresh air. It is, of course, very important that water-grown vegetables should not be eaten uncooked ; and that food should not be allowed to get dusty or contaminated, or be left exposed to flies. The danger of infection from food may be not *in* the food, but *on* it ; and a man can hardly be too careful over the cleanliness of his food.

## CHAPTER IV

### HISTORY AND PEOPLES

History—Ethnology—Religion—Education, Language, and Literature.

#### HISTORY

MACEDONIA, though geographically an entity with natural frontiers and a great sea-port, now forms the debatable frontier land of three States with distinct capitals. But it has been in ancient times the seat of empires—those of Philip and Alexander—and in recent days came near to being established as a modern political unit. After some 2,000 years of subordinate existence as a Roman, Byzantine, Bulgarian, Serbian, and finally Turkish province, it became the seat of separate political notoriety in the last forty years.

The gradual ebbing of the Turkish Empire from its high-water mark at Vienna in the seventeenth century left the Turks a hundred years ago with no European possession outside the Balkans. The liberation of Serbia and of Greece followed. Turkey then enjoyed a respite till 1877. The Russian War of that year ended with the Treaty of San Stefano, which left Turkey little except Albania and part of Thrace, a Bulgarian State being created, extending from the Black Sea and the Danube to Ochrida and Salonica. But it was the policy of Great Britain and also of the Teutonic Powers to keep Russia from the open sea. Therefore, while Austria was given Bosnia with a frontier conterminous with Turkey, Bulgaria was confined to the country north of the Rhodope. The inhabitants of the territory between these two frontiers had meanwhile experienced freedom and had based their hopes on the Bulgarian idea. When Turkish misgovernment was reimposed upon them, Bulgarian schools

spread more rapidly than ever, and it was natural that the map of Bulgaria, as created by a treaty duly signed by two Great Powers, should be hung in every school as a charter of Bulgarian rights. By these events Macedonia, hitherto undefined in area, gained a political life peculiar to itself and a definite frontier. It is true that the Turks, taking alarm, forbade the use of the term 'Macedonia';<sup>1</sup> they called European Turkey 'Rum' (Greek), and added to the confusion of the ethnological frontiers by creating the vilayet of Kosovo, a medley of Bulgars, Serbs, and Albanians; but a special article of the Berlin Treaty provided for reforms. These were elaborated by an International Commission, of which Lord Edmond Fitzmaurice was the British member. When the Turks declined to apply them, revolutionary movements were organized, and finally after the insurrection of the Macedonian Bulgarians and the extensive massacres that accompanied its suppression in 1903, the Powers instituted a system of supervision for finance and for the *gendarmérie*, under which British officers were quartered at Drama, the other districts being allotted to France, Russia, Italy, and Austria. In European diplomacy Macedonia received increasing attention. Its condition was described by Lord Lansdowne, when Foreign Minister, as a standing menace to European peace. As the last unallotted bone of contention in the European heritage of Turkey, it became the cockpit of the final struggle between the propaganda not only of the Balkan States but of the Great Powers also.

When, through the Bulgarian insurrection, it became clear that the Macedonian question could not be left alone, three different remedies competed for support. The Bulgars urged autonomy, following the Berlin Treaty, relying on the sympathy of the Macedonians themselves, and believing that, even if a separate State were created, that State would be

<sup>1</sup> It was urged, for instance, that the circulation of the New Testament encouraged sedition by using that term, so that the words 'Come over into Macedonia' should run 'Come over into the three provinces of Salonica, Monastir, and Kosovo'.



sympathetic to Bulgaria. A second remedy, partition, was urged by Greece and Serbia, they having no such confidence in Macedonian sentiment. Thirdly, the Great Powers, feeling that their own rivalries might lead to conflict, endeavoured to avoid the day of settlement by schemes for mitigating the provocative misrule of the Turks and for leading up to control by forces of the Great Powers.

Meanwhile an unexpected factor was at work. Young and active Turkish officers, irritated (and unpaid) by Abdul Hamid's clique, and forbidden to go abroad even for military studies, were stimulated to reform by observing the well-paid European officers quartered in their midst. They saw the country seriously menaced for the first time in 1908, when the historic feud of Great Britain and Russia came to an end, and the Reval meeting between King Edward VII and the Emperor of Russia took place. The notorious 'revolution', in which Enver Bey and Talaat Bey were leading figures, followed. A constitution was demanded, and when the Albanians, hitherto faithful to the Sultan, supported the demand, it was promised. A truce with Christians was declared. Lion and lamb demonstrated together at Salonica. The Powers, too hastily, withdrew their officers.

It soon became evident that Young Turkey meant a system of 'Turkification' carried out with new efficiency. Hopes of European intervention, establishing control or granting autonomy, had now vanished, and the common danger had accomplished the miracle of Balkan unity. The Balkan War followed. The Turkish army, to the surprise of its German instructors, was beaten, and the Turkish Empire receded to the lines of Chatalja. The Serbs for the first time reached the sea. Then Austria intervened. Serbia was driven from her just rights on the Adriatic. The Bulgars meanwhile were tempted by success, and by the ambition of their king, towards Constantinople. The partition contemplated was upset and the internecine second Balkan War followed. Slav Macedonia was occupied by the Serbs, and a host of peasants, schoolmasters, and notables became refugees in Bulgaria.

The Turks returned to Adrianople in contravention of the Treaty of London of May 30, 1913.

The evil effect of this war, the melancholy result of Teutonic intrigue, cannot be exaggerated. If the Balkan 'bloc' had held together, there would have been no possibility for Germany to use the Balkans as a corridor to Turkey, and therefore perhaps no European War. For every Balkan State is interested in keeping out the great Empires; Bulgaria could be led by her king to the German side only because in no other way could she regain her 'out-landers'. Again, the weakness of Serbia (while Bulgaria remained hostile) was the incentive to Austria in her ambition to reach Salonica, and it was on this Austrian ambition that Germany based her policy in 1914.

By the Treaty of Bucharest (August 9, 1913), Macedonia was divided on a basis unwelcome to the Macedonian population, and Bulgaria, when the great war reopened the Balkan question, was nearly driven, by the universal desire to recover her rights from Serbia, to an immediate invasion of Macedonia, and in the end was an avowed bidder for the best offer of help in securing her claims. Owing to the circumstance that Russia had supported Serbia against Austria-Hungary, the *Entente* was hampered in its attempt to adjust the territorial claims between Bulgaria and Serbia, with whom Greece also was ostensibly allied. Germany had no such difficulty in making explicit and much wider promises, backed by her invading armies.

The population of Macedonia remains in sentiment as before. The new feature is the advent of the three States, whose forces it has seen occupying the country in varying proportions, Serbia governing the largest section till her forces were replaced by those of Bulgaria in November 1915.

#### ETHNOLOGY

The Macedonian Slavs form part of the Southern Slav race, whose ancestors overran the Balkans in the third century A.D. and onwards. A section of this race, conquered in the

seventh century by the Bulgars of the Volga valley (a Turkish race), acquired their name and some of their characteristics. The differences thus established were not great and they prevailed only to a minor extent in Macedonia.

That country, whose geographical situation adapted itself either to partition or to separate government, was thus equally fitted by ethnography for either of these destinies. The nationality of the population is the subject of endless dispute. The most exhaustive studies are those of avowed partisans. A Serbian map shows the whole of Slav Macedonia to be Serbian; a Bulgarian map, Bulgarian; and if an attempt is made from an impartial point of view to learn the facts, the reply is that there are no established facts, except that a Greek population inhabits the coast region and that beyond this region the people are Slavs, while there is also a certain number of Turks, Roumanians, Albanians, and—at Salonica—Spanish Jews. It is the Slavs who are in dispute, and their nationality can be determined according to the basis upon which a conclusion is founded, whether it be race, language, domestic customs, religion, or existing national sentiment. The Serb bases his claim on Serbian predominance in the fifteenth century (later than any Bulgarian predominance), on folk-songs, certain social customs, &c.; the Bulgar on the feeling of the people to-day and on the fact that the language used employs the terminal article peculiar to the Bulgarian tongue among Slav languages. He further maintains that his contention is admitted by the Treaty of San Stefano of 1878, and the Treaty with Serbia of February 29, 1912. As to religion, whole districts have belonged, according to the degree of ecclesiastical vigour of one set of propaganda or the persecuting intensity of another, to the Greek, the Bulgarian, the Serbian, and again the Bulgarian Church. To give an instance of the confusion, the French forces on the Crna River, relying on the Serbian maps, were surprised to find the villagers eager to help the Bulgarian invaders.

The matter is complicated by the fact that, the population having belonged half a century ago to the Greek Church,

a section of Slavs calls itself Greek, though speaking Bulgarian. While the Greek insists that these are 'Bulgarophone Greeks', and the Bulgarians that they are Bulgars deterred from joining the national Church by Greek threats of excommunication, the Serbs may insist that the same people are racially and potentially Serbs. In some cases the purest Slav may be the keenest Greek, just as the keenest Turks (the Pomaks, who are Mohammedan Slavs) are often the purest Bulgars in blood.

For ethnological purposes it is generally agreed that racially the Macedonian is somewhat distinct from both Serb and Bulgar. For political purposes it is agreed that the index of nationality is the inclination of the people and that this is mainly Bulgarian.

The population of what was lately Serbian Macedonia is about 1,100,000. Before the war of 1912 about sixty per cent. were Slavs, twenty per cent. Vlachs and Greeks, and twenty per cent. Turks or Albanians. The last, who largely disappeared during the Serbian occupation, may have returned since the entry of Bulgarian and Turkish troops. The Slavs mainly adhered to Bulgaria before 1912; under the Serbs the Bulgarian schools and churches were suppressed and the Serbian form of personal names was enforced. Since the Bulgarian invasion it is probable that even the villages which adhered to Serbia under the Turks are loyal to Bulgaria.

#### RELIGION

The Greeks and Vlachs are members of the Orthodox Eastern Church, recognizing the Greek Patriarch of Constantinople. The Serbian Church is an independent branch of that Church, with Serbian bishops subject to the Archbishop of Belgrade. The Bulgarians till fifty years ago also belonged to the Orthodox Church, but their desire for national unity led to the demand for a liturgy in the Bulgarian tongue, and Russia obtained the sanction of Turkey to a separate Bulgarian Church. That Church, in point of ritual and doctrine, is indistinguishable from the Orthodox



Church, but is regarded as schismatic by the Greek Patriarchate. Of the Albanians about a quarter are Roman Catholic, the rest being Mohammedan, except that in the south many Albanians are Orthodox.

Monasteries are a great feature in Balkan life, and have contributed largely to the national feeling in each nation.

#### EDUCATION, LANGUAGE, AND LITERATURE

Printing and the means of study having been non-existent in Turkish times, such learning as existed in Macedonia was derived from Serbian, Bulgarian, or Greek sources. Whatever literature prevails to-day in Macedonia results from recent annexations by those States. Their rivalry, though aimed at political ends, produced incidentally far more education than would otherwise have existed, for their propaganda was conducted by means of schools. In another way it led to enlightenment, for when, in 1904, the feud took the form of conversion by terrorism, the peasants who adhered to Bulgaria emigrated in immense numbers to America. They left their families at home, and when in 1912 the Balkan War broke out, they returned. So that the British private can quite frequently converse with Macedonian peasants.

The language of the Macedonian Slavs has affinity both to Serb and to Bulgarian; the distinguishing characteristic of the latter, the use of the definite article at the termination of the noun, prevails in Macedonia.



## CHAPTER V

### GOVERNMENT AND ADMINISTRATION

It has been thought desirable to supply a few notes on the form of government and the administrative systems of those states whose territories fall within the area with which this book deals. The notes do not pretend to be exhaustive. They touch only on matters of practical importance to foreigners who have to have dealings with the government, officials, or the natives generally of Bulgaria, Greece, or Albania. Inasmuch as most of the territory covered by this book was recently in Turkish occupation it is also appropriate to include a retrospective review of the government and administration of that empire. Reference should further be made to the *Handbook of Serbia* (No. I.D. 1096).

#### GREECE

The administrative system of the modern Greek kingdom is organized on modern lines. The government is a constitutional monarchy with the usual paraphernalia of king, cabinet, and chamber of deputies. Though strictly limited on paper, the power of the crown may become very great, if the king for the time being chooses to exert to the full the powers committed to him. His right to dismiss a ministry and dissolve the existing chamber of deputies gives him great influence with the normal Greek cabinet, a large number of the members of which are very much more comfortably off as ministers than as ordinary deputies. Thus the mere threat of dissolution may have considerable effect on the policy of a ministry.

As head of the army and navy all patronage within those services is in the hands of the king; and a monarch who

chooses to exercise this power in his own interest can do so without any violation of the constitution. Should military law be proclaimed, the power of the king, since he is head of the fighting forces of the country, is greatly increased, and is in some respects almost absolute. When the country is at war, or in times of national crisis, it is the king, if he be a strong man, who really counts as far as international relations with the Greek Government are concerned, though the actual business may have to be transacted with ministers.

Those who deal with local governments in Greek territory will find two classes of officials, corresponding very closely with the prefects of departments and the mayors of arrondissements in France. The country is divided into fairly large regions, over each of which is a nomarch or prefect who administers it. He is able by his position to give considerable help to, or to put considerable obstacles in the way of, those who have dealings within the nomarchy. The same is the case with the demarchs or mayors of villages, who may be immensely useful to those who have got the right side of them, and very annoying to those who have not. Few demarchs have knowledge of any language but their own. The nomarch will generally be found to have a good, or, at any rate, working acquaintance with French. There is no separate police force in the country. Police duties are carried out by the regular soldiers, so many as are required by the necessities of the district being placed at the disposal of each nomarch. Their activities are naturally somewhat more rough and ready than those of a civilian force; but on the whole the system does not work badly. There were indeed difficulties in northern Greece in the years succeeding 1897, because in that year the peasants in the villages along the line of the Greek retreat bought rifles and ammunition from the starving soldiers at the price of small supplies of food. Thus nearly every villager in north-east Greece from the north border of Thessaly to the southern limits of Boeotia became possessed of an effective weapon, with the consequence that each village became a community which might, if so

minded, defy the nomarch, unless the latter were prepared to undertake a little war whenever he wished to arrest a local criminal with whose deeds his fellow villagers sympathized. There was no sympathy with mere vulgar crime, nor was there any recurrence to the old brigandage, which would have brought down the whole force of the government on the offenders ; but villagers who had taken vengeance by killing or wounding persons who were alleged, for instance, to have removed landmarks, were openly protected by their fellows, and their arrest became practically impossible. Foreigners travelling or residing in the country were not interfered with, unless, as was the case in one instance, they became involved in such a type of dispute. But it is well for those who deal with Greek peasants in their villages to remember that the village community is a very real thing, and in dealing with the demarch and leading inhabitants, a full expression of the value attached to the goodwill and help of the community will certainly go a long way towards securing both.

### BULGARIA

Bulgaria is a constitutional monarchy of the same general type as that which exists in Greece, consisting, that is to say, of a king, a cabinet of ministers, which forms the executive, and a single chamber, the Sobranje.

For the same reasons as those stated in the case of Greece the powers of the king are capable of great practical extension in the hands of a sovereign who has no scruples about using them.

As in Greece, the country is divided into large departments, of each of which a prefect appointed by the central government is in charge. He is responsible for the general civil government and order of his region, and has under his control a body of civil police. In dealing with matters of public order or morals he has powers considerably wider than are commonly given to similar officials in Western Europe.

These prefectural districts are divided into smaller districts

which may consist of a town and its environs or of one or two villages. The local authority in such districts is a town or district council, elected by and from among the inhabitants. Their powers are not merely those usually allotted to such bodies in Western Europe, but include the charge and management of the common lands, chiefly pasture and forest, within their district.

The Code Napoleon has been adopted for the law of the country. Englishmen who have resided in Bulgaria of late years report that justice is well and promptly administered. The magistrates are a paid body, and are appointed by the state. Alike in civil and criminal actions a foreigner is just as sure of getting justice as a native. No bribery obtains in the courts ; and since the time of Stambuloff they have not been used for the purposes of political persecution. Condemnation of the innocent is as rare as in the courts of any country in the world, though verbal persuasion may be employed to induce a court to mitigate the due sentence on a criminal with influential connexions. Title to property is a mere question of registration, accompanied if necessary by survey ; and such a title, both by law and in the actual courts, is just as good if held by a foreigner as it is if held by a native.

#### ALBANIA

There is at the present time practically no administrative system in the Albanian region ; and even under the former Turkish régime such a system existed in name rather than in reality. Save in moments of temporary aberration the Turkish Government was wise enough to leave the Albanians alone. The Albanian is a very good friend to those who can interfere with him but have convinced him that they have no intention of doing anything of the kind. Any one who is successful in giving this impression may look for Albanian friendship and help. The Albanian, though a good and very trustworthy friend, is a persistent and treacherous enemy. His whole political and social life is built upon the



clan system. All that he asks is to be let alone to arrange his life and his internal quarrels in his own way. In respect to what is ordinarily counted wealth he is very poor; but such poverty is immemorial with him, and consequently his wants are few. It is true that on various occasions Albanian chiefs have been successfully bribed; but the investment has never proved a good one, inasmuch as the briber has found that resort to it means the creation of two enemies for each friend he makes. Dealings with this people must be done through the chiefs or their properly accredited agents; but, if they are to lead to any good, they must not be suspected of being the thin end of a wedge intended either to overthrow the power of the chiefs or to impair the independence of the clans.

#### THE TURKISH ADMINISTRATIVE SYSTEM

Before the beginning of the sixteenth century the Turkish Government was an Oriental despotism, based on force. The Sultan was a feudal War Lord, receiving obedience from a number of feudal sub-chiefs.

In 1517 Sultan Selim, the Grim, usurped the Caliphate, or Papacy of Islam, from the Arabs, and united the spiritual and temporal power in the person of the Sultan-Caliph of Constantinople. The Ottoman Government thus became a theocracy, deriving its inspiration from the Koran. At the time of the capture of Constantinople in 1453 the Turkish State already rested on an Islamic basis, and Mohamed the Conqueror decided that the religious and purely internal affairs of the Orthodox Christian communities, which had survived the Turkish conquests, should be delegated to their respective religious heads, the chief of whom was the Orthodox Patriarch of Constantinople. The Jewish community was similarly dealt with. The Turkish conqueror was too contemptuous of the infidels and their ways to condescend to deal with the affairs of their communities, which were called 'millets', really meaning 'nations'. The root of this policy was, perhaps, the incompatibility of Koranic law with Chris-



tian jurisprudence, as a Moslem court could not admit the testimony of a Christian witness against a Moslem. The Christians, called 'rayahs', had no real rights and were treated as helots. Until 1839 there were four such non-Moslem 'millets': the Greek, Armenian, Roman Catholic, and Jewish communities. Subsequently the Bulgarians, Maronites, Nestorians, and Protestants were also recognized. The fact that the Patriarchs and other religious heads were the recognized channels of communication with the Porte in all matters affecting their communities gave them a position of considerable influence and prestige. Foreign Christians had an analogous position. In virtue of the Capitulations they were subject in common-law cases to the jurisdiction of their own consuls and embassies, but were not allowed to hold real property.

From 1453 to the beginning of the nineteenth century the Turkish State was a loosely jointed structure. The Turk's ideal was to live on his conquests and conquered, and his organization was purely one adapted to the needs of war against the infidel.

The Sultan-Caliph delegated most of his religious authority to the Sheikhlislam, who appointed the religious functionaries in the provinces and supervised all matters appertaining to Islam. The Ottoman Sultan similarly transferred a certain meed of his temporal power to his Grand Vizier, through whom all the high officers of State, both in the capital and in the provinces, were nominated. The Empire was divided into immense provinces called 'Eyalets', presided over by a Pasha of three tails, e.g. the Pasha of Belgrad was Viceroy of all Turkey in Europe south of the Danube; the Pasha of Erzerum ruled all Kurdistan and Armenia; the Pasha of Bagdad exercised authority over the Mosul, Bagdad, and Basra regions; while the Pasha of Damascus controlled all Syria. When Russia's wars for the liberation of 'her Orthodox Christian brethren' from their yoke as rayahs resulted in the shrinkage of the Ottoman Empire, the necessity of internal change on the lines of a more closely knit system

were felt. The Janissaries and the feudal chiefs were removed by massacre and a regular army established with a Minister of War. The 'Eyalets' were abolished and replaced by the smaller divisions called Vilayets, governed by a Vali, with an Accountant-General (Defterdar) for finance, a Secretary-General (Mektubji), representatives of the Public Works, Public Instruction, and other departments in the capital. The Vali was further assisted by an Administrative Council (Idare Mejlis). Each Vilayet was divided into two or three Sanjaks, administered by a Lieut.-Governor (Mutessarif) appointed by Imperial decree. The Sanjak had a finance officer (Muhassebeji), a secretary (Tahrirat Mudiri), and representatives of the various ministries, with also an Idare Mejlis, as in a vilayet. Each Sanjak was subdivided into from three to six Kaza, administered by a sub-governor called Kaimakam, appointed by the Government, while the Kaza was further subdivided into three or four Nahiyyas presided over by a Mudir.

These and other similar changes were effected during the first half of the nineteenth century and were confirmed and amplified by the Hat-i-Humayun of 1856 after the Crimean War. Equal civil, political, and religious rights were promised, if not actually granted, to all the inhabitants of the Ottoman Empire, without distinction of race or creed. A Penal Code, a Commercial Code, a Vilayet Law, and other such modern changes were instituted by Imperial decree, while a regular Ministry of twelve members, inclusive of the Grand Vizier and the Sheikhulislam, was formed, and a Council of State was established. These changes did not materially alter the character of the Turk or of his administrative methods. They were honoured more in the breach than in the observance. Fresh disorders and massacres of Christians occurred and the Serbian and Russo-Turkish wars (1875-8) ensued. A desperate effort was made to modernize Turkey by introducing representative institutions in 1876 in the shape of a Senate and Chamber of Deputies with a Ministry responsible to the Sultan. This system was soon found unworkable and unpalatable to the

new Sultan, Abdul Hamid II, who in 1878 prorogued Parliament indefinitely and governed through the Palace and Porte for over thirty years. The abuses and disorders continued and culminated in the Macedonian agitation during the first eight years of this century. In July 1908 the Turkish army took the situation in hand, forced the ex-Sultan to revive the Constitution of 1876, dethroned him, installed the Young Turk Government in power with the present Sultan as their nominee and creature, and modified the Constitution by introducing Parliamentaryism, or responsibility of the Ministry to the Chamber. The Sultan and Senate were shorn of all power, and, as the people were totally lacking in political instinct or education, the Young Turks, who constituted but an infinitesimal minority of the population, found that they could only govern by putting the Chamber of Deputies under the shadow and terrorism of the court martial and the state of siege which they established in the capital in 1909 and have maintained till the present day (1916).

All real power was vested in this secret court martial, whose proceedings were manipulated by the central office of the irresponsible Committee of Union and Progress. This body established branches in all the provincial centres to control the action of the official local authorities, i.e. the Valis, Mutessarifs, Kaimakams, &c. As the central court martial was composed of officers who, either from having studied in Germany or for other reasons, were under German influence, the German Ambassador and his military attaché became the real arbiters of Turkey and the directors of its central and provincial administration.

The German aim was to secure for their representative at Constantinople the position which Lord Cromer built up in Egypt, and in this they had partially succeeded when the Great War broke out. The Young Turks, allured by the prospect of freeing their country from all non-Turkish trammels, proceeded to abolish the Capitulations and the rights of the non-Moslem millets, and then, despite the written assurances of territorial integrity offered them by Great Britain,

Russia, and France, boldly plunged into war by attacking Russia and Egypt.

Since the inauguration of the Young Turk régime in July 1908, the Ottoman Empire had up to March 1916 lost 1,005,480 square miles of directly or indirectly administered territory in Europe, Africa and Asia, leaving some 700,000 square miles (i.e. three times the size of Germany) still remaining.

## CHAPTER VI

### MONEY, WEIGHTS AND MEASURES

IN regard to nearly all the countries of the Balkan Peninsula it is to be noted that while the respective governments have been quick to see the advantages of the metric system, the peoples have, as a whole, displayed a conservative preference for the older, more confused and often locally-varying methods. This is especially the case in regard to weights and measures, but even in the matter of coinage the people are often found to insist on using the most nearly applicable denominations of the old system rather than the simpler official nomenclature.

#### GREECE

##### MONEY

In regard to money, Greece follows the French system and belongs to the Latin Monetary Union.

##### *British Sterling Value.*

$$\begin{array}{rclcl} 100 \text{ lepta} & = & 1 \text{ drachma} & = & 9.5d. \text{ (specie).}^1 \\ \text{,,} & & = 1 & \text{,,} & = 2 \text{ (paper).} \end{array}$$

The currency was for many years almost entirely paper, there being a heavy premium upon specie. Gold and silver coins had practically disappeared from circulation until, from 1910, the silver currency began to be restored by the repatriation of coins from other countries of the Latin Union.

The gold coins of Great Britain, Austria, Germany, Denmark, Russia, Spain, Turkey, Egypt, and the United States are accepted by the Treasury and by private persons as legal

<sup>1</sup> The British par value is given here and throughout.

<sup>2</sup> Value liable to considerable fluctuation.



tender, one-fourth per cent. being deducted from their nominal value.

The National and the Ionian Banks issue currency notes.

		<i>British Sterling Value.</i>		
		£	s.	d.
<i>Gold coins</i>	100 drachmai	3	19	4·4
	50 „	1	19	8·2
	20 „		15	10·5
	10 „		7	11·25
<i>Silver coins</i>	5 „	3	11·62	
	2 „	1	7	
	1 drachma			9·5
	50 lepta			4·75
<i>Nickel coins</i>	20 „			1·9
	20 „			1·9
	10 „			0·95
	5 „			0·47
<i>Bronze coins</i>	10 „			0·95
	5 „			0·47
	2 „			0·19
	1 lepton			0·09

#### WEIGHTS AND MEASURES

The metric system was legally established in Greece by a Royal Decree issued in 1836. This decree, however, was acted upon to a very limited extent, and, as far as the use of the metric system by the general public is concerned, it remained practically a dead letter. Thus, according to a report dated 1900, while the Greek Government used the metric system in the measurement of area and distance, e. g. in the sale of Government lands, the public always used the old *piki* (= 0·65 metre).

As regards weights and measures of capacity, neither the Government nor the public used the metric system, both preferring to employ the *oke* (= 1·282 kilogrammes in weight, and, as a measure of capacity, 1·33 litres).

When the metric system is used the ordinary French names are replaced by the following :

	<i>Metric Equivalent.</i>	<i>British Equivalent.</i>
1 pecheus	1 metre	39·37 inches.
1 palame	1 decimetre	3·937 „
1 dactylus	1 centimetre	0·39 „
1 stadion	1 kilometre	1093·63 yards or 0·621 mile.
1 stremma	1 are	119·6 sq. yards.
1 litron	1 litre	1·76 pints.
1 kotyle	1 decilitre	0·17 pint.
1 koilon	1 hectolitre	22 gallons.

The following may also be noted :

- 1 gran = 1 centigramme.
- 1 obolos = 1 decigramme.
- 1 drachma =  $3\frac{1}{5}$  grammania = 1 gramme.
- 1 mina = 1,500 drachmai =  $1\frac{1}{2}$  kilogrammes.
- 1 kubos = 1 millilitre.
- 1 mystron = 1 centilitre.
- 1 oka = 1·33 litres (as a weight = 2·80 lb. Av.).
- 1 statir = 440 okas = 56·408 kilogrammes or 123·2 lb.
- 1 piki = 1 metre.
- 1 old (Constantinopolitan) piki = 0·65 metre.
- 1 builders' piki = 0·74 metre.
- 1 salami =  $\frac{1}{10}$  metre.
- 1 old stremma = 1,270 sq. metres.

### Ionian Islands

In the Ionian Islands British measures under Italian denominations are used, e. g. :

libbra sottile = 1 lb. Troy.

libbra grossa = 1 lb. Av.

1 chilo = 8 galloni = 1 imperial bushel.

1 barile = 16 galloni = 2 bushels.

In measures of length  $5\frac{1}{2}$  jarde = 1 carnaco; 22 jarde = 1 stadio.

## SERBIA

### MONEY

The monetary system is the same as that of the countries of the Latin Union (law of 1878) :

100 paras = 1 dinar = 9·5 pence

Very little gold is in circulation, the actual currency being mainly silver and bank-notes of the National Bank of Serbia :

*British Sterling Value.*

		<i>s.</i>	<i>d.</i>
<i>Gold coins</i>	20 dinars	15	10·5
	10 „	7	11·25
	5 „	3	11·62
<i>Silver coins</i>	5 „	3	11·62
	2 „	1	7
	1 dinar		9·5
	50 paras		4·75
<i>Nickel coins</i>	20 „		1·9
	10 „		0·96
	5 „		0·48
<i>Bronze coins</i>	10 „		0·96
	5 „		0·48

In Serbia the old Turkish names of the coins and method of reckoning are still used, especially in villages and country markets. There are two kinds of para—(i) para čaršijska, and (ii) para dinarska : (i) is the Turkish form (*čaršija* = market) and is half the value of the modern para dinarska.

Thus we have :

(a) 5 para dinarska = 10 para čaršijska = 1 marjoš.

The marjoš is a coin about 1 halfpenny in value.

(b) 20 para dinarska = 40 para čaršijska = 1 groš or gruš.

The English and French call a groš a piastre, but the name is obsolete.

(c) 5 groš = 1 dinar (the modern franc unit).

(d) 5 dinara.

(e) 10 dinara = 1 banka ('bank-note').

(f) 15 dinara =  $1\frac{1}{2}$  banka (*banka-i-po*).

(g) 20 dinara = 2 banke (*dve banke*).

The purchaser must not forget that answers are always given in para čaršijska; otherwise he may unwittingly pay double.

### WEIGHTS AND MEASURES

The metric system was introduced by law in 1873, but did not come into force until 1883. It has not, however, entirely displaced the old Turkish weights and measures (see below).

### ALBANIA

There is no independent monetary system in Albania.

As regards weights and measures, the following information, though referring to the period of Turkish domination, may be quoted:

The same weights and measures are used as in Turkey; but as Albania once belonged to Venice, some of the old Venetian weights and measures have survived. The old Venetian weights are:

Migliajo	=	1051·6	imperial lb.
Centinajo	=	105·16	"
Miro	=	26·290	"
Libbra grossa	=	1·0516	"
Once	=	1·402	imperial oz.
Carat	=	3·195	imperial grains.

Old oil measures used in Albania:

Canada = 0·707 imperial gallon.

Succale = 0·714 " "

Old corn measure used in Albania:

Tagari = 5·658 imperial gallons.

## BULGARIA

## MONEY

Under the law of February 16, 1897, the currency is based on the single gold standard and follows closely the French system.

100 stotinki = 1 lev = 9·5 pence.

		<i>British Sterling Value.</i>		
		£	s.	d.
<i>Gold coins</i>	100 leva <sup>1</sup>	3	19	4·4
	20 „		15	10·5
	10 „		7	11·25
	5 „		3	11·6
	5 „		3	11·6
<i>Silver coins</i>	2 „		1	7
	1 lev			9·5
	50 stotinki			4·75
<i>Nickel coins</i>	20 „			1·92
	10 „			0·96
	5 „ <sup>1</sup>			0·48
	2½ „ <sup>1</sup>			0·24
<i>Bronze coins</i>	10 „ <sup>1</sup>			0·96
	5 „			0·48
	2½ „			0·24

In view of what has been said in the prefatory remarks, the following is of interest :

‘The names of Turkish coins have survived in common use, not as representing their exact value (as the word ‘guinea’ does in England), but by adaptation to the nearest equivalent coins of the French decimal system. Local differences, however, exist, the *lev* or franc being taken in the neighbourhood of Philippopolis as equivalent to 6 grosh, the name *grosh* (piastre) being everywhere else taken as indicating the twenty-centime piece.’

<sup>1</sup> These coins were apparently out of general circulation in 1908.



## WEIGHTS AND MEASURES

Officially these are the same, and bear the same names, as those used in France.

They were introduced by law in 1888, but how difficult it was to enforce their adoption is shown by a passage in a report made by the British representative at Sofia in 1900 :

‘The Bulgarian peasant keeps the old Turkish weights and measures in his cottage, weighs his produce by them before he brings them into town for sale, and prices them according to that scale ; but the shopkeeper who buys the village produce weighs them by the metric scale, and pays for them accordingly. Conversely, the commodities which the peasant buys in the town he asks for according to the Turkish scale, but he is served according to the metric scale.

‘In Turkish times, and until the metric system was introduced, the unit of measurement for grain was the *kilé*, which, however, varied in size in different districts, the *kilé* of Razgrad having twice the capacity of the *kilé* of Varna, and the *kilé* of Rustchuk being midway between the two. The peasants still keep the old measures for their private use, but no sale of grain is permitted except by the standard metric measures kept by the mayor of each village.’

The new system, however, is shown to have made progress by the fact that instances are quoted in which British trade has suffered because English goods offered for sale here have been made to English instead of metric weights and measures.

## TURKEY

## MONEY

In view of the retention of Turkish standards, as indicated above, in the countries dealt with in this volume, the following information is added :

The monetary system is as follows :

40 paras = 1 piastre = 2·16 pence (British).

100 piastres = 1 mejidie or lira Turca (£T) = 18s. 0·81*d*.

		<i>British Sterling Value.</i>	
		<i>s.</i>	<i>d.</i>
<i>Gold coins</i>	Lira	18	0·81
	Yarim or half-lira	9	0·40
	Cherek or quarter-lira	4	6·20
	The purse = 500 piastres = £T 5.		
	The half-purse = 250 piastres = £T 2½.		
<i>Silver coins</i>	Mejidie	3	7·36
	Yarim	1	9·6
	Beshlik		10·9
	Ikilik (= 2 piastres)		4·32
	Piastre		2·16
	Half-piastre		1·08
<i>Nickel coins</i>	Piastre		2·16
	Half-piastre		1·08
	Quarter-piastre		0·54
	Five paras		0·27
	Para		0·05

The nickel coinage is at a discount. Foreign gold circulates freely. Owing to the circulation of debased and repudiated coins there is considerable confusion in Turkish currency.

### WEIGHTS AND MEASURES

By a decree of the Sultan the metric system of weights and measures, the same as in France and in most other countries in Europe and America, came into force in Turkey on March 1, 1882. The equivalents of the old and the new weights and measures were stated as follows :

#### *Measures of Length.*

The unit of measures of length is the *arshin*, of the same length as the metre, and equal to 39·37 British imperial inches. The measures of length are as follows :

*British Equivalent.*

1 nokta, or millimetre	=	0.0394	inch.
10 nokta = 1 khat, or centimetre	=	0.394	„
10 khat = 1 parmak, or decimetre	=	3.937	inches.
10 parmak = 1 arshin, or metre or zira-i-sherī	}	39.37	„
1,000 arshin = 1 mili, or kilometre, or mili-i-sherī	}	1093.614	yards. or 0.621 mile.

*Measures of Surface.**British Equivalent.*

1 square arshin or sq. metre or centiare	=	1.196	sq. yds.
100 square arshin = 1 dōnum or are	=	119.6	„
100 dōnum = 1 jerib, or hectare	}	11959.9	„
		or 2 acres	2279.9 „

*Measures of Cubic Capacity.*

The *sulchek* is the unit of measures of capacity ; it is a cube, the sides of which are each equal to one parmak, or decimetre. It is, in other words, the  $\frac{1}{1000}$ th part of a cubic archine, or metre. The measures of capacity are as follows :

*British Equivalent.*

1 zarf	=	2.816	fluid drachms.
10 zarf	= 1 kuton	= 28.157	„ „
10 kuton	= 1 sulchek, or litre	= 1.76	imperial pints.
10 sulchek	= 1 kile, or decalitre	= 21.998	imperial gallons.

*Weights.*

In weights, the *oke* (oka, ok) is divided into 100 drachma, the drachma into 10 denk, the denk into 10 boghdāi, the boghdāi into 10 habbe (grammes). The *batman* is 10 oke, the *kantar* is 10 batman, and the *cheki* is 10 kantar, as follows :

		<i>British Imperial Value.</i>
1 habbe or centigramme	=	0.154 grain.
10 habbe	= 1 boghdāi or deci-gramme	= 1.543 grains.
10 boghdāi	= 1 dirhem-i-sheri' or gramme	= 15.432 „
10 dirhem-i-sheri'	= 1 drachma or deca-gramme	= 154.323 „
10 drachma	= 1 oke, or vakie-i-sheri', or kilogramme	= 2.205 lb. Av.
10 oke	= 1 batman or myria-gramme	= 22.046 „
10 batman	= 1 kantar or quintal-metrique	= 220.462 „
10 kantar	= 1 cheki or millier	= 2204.622 „

*Old Turkish Weights and Measures.*

The former weights and measures were as follows :

*Old Measures of Length.*

Pik or dra of 24 kerat, in commerce reckoned as 27 British imperial inches, or 0.685 metre.

There are three kinds of pik, viz. dra (for silks and drapery) = halebi or arshin (used in surveying) = 27.9, and endaze (used for all other manufactured goods except silk and drapery) = 25.69 British imperial inches.

The halebi = 0.71 metre, and the endaze = 0.65 metre.

Berri = 1.03 British statute miles, or 1,670 metres, or 1826.367 British imperial yards.

Agach or farsang of 3 berris.

*Old Measures of Surface.*

Square kerat and pik ; cane or reed of  $5\frac{1}{2}$  pik ; feddan = as much as a yoke of oxen could plough in one day, or about 1 British statute acre.

*Old Measures of Capacity for Dry Goods.*

Killo of 2 jubbeh, of 2 sa, of  $5\frac{1}{2}$  rottol, of 12 okie or 900 dirhem = 35·27 litres, or 15·517 British imperial pecks, or 7·758 British imperial gallons.

Fortin = 4 killo.

*Old Liquid Measures.*

Almud of 8 oke, of  $5\frac{1}{2}$  okie = 1·152 British imperial gallons.

The rottol of 12 okie = 2·513 British imperial pints.

The kantar = 100 rottol.

*Old Weights.*

Oke of 4 okie = 400 dirhem = 2·834 lb. Av., or 1·286 kilogrammes.

Kantar of 44 oke, or 100 rottol = 124·702 lb. Av., or 56·564 kilogrammes.

Rottol = 1·247 lb. Av., or 0·566 kilogramme.

It may be useful to summarize Turkish and Greek metrical equivalents in a comparative table:

<i>Metric.</i>	<i>Turkish.</i>	<i>Greek.</i>
Decimetre	parmak	palame.
Metre	arshin	pecheus.
Kilometre	mili (10 mili = 1 farsang <sup>1</sup> )	stadion.
Gramme	—	drachma.
Kilogramme	oke	1,000 drachma.
$1\frac{1}{2}$ kilogrammes	—	1 mina.
10 kilogrammes	batman	—
100 kilogrammes	kantar	—
Millilitre	—	kybos.
Centilitre	—	mystron.
Decilitre	—	kotyle.
Litre	sulchek	litra.
Decalitre	kile	—
Hectolitre	—	koilon.

<sup>1</sup> It will be noticed that the old farsang is half the length of the new (metrical) farsang. The old farsang is considered an hour's journey, but in describing distances guides invariably employ the word *saat* (i. e. hour) as equivalent to about 3 English miles.



## METRICAL UNITS AND BRITISH EQUIVALENTS

The following are inserted for reference :

Gramme = 15·43 gr. Troy.

Kilogramme = 2·205 lb. Avoirdupois.

Quintal = 220½ lb. Avoirdupois.

Tonneau (the metric ton) = 2,205 lb.

Litre (liquid) = 1·76 pints.

Hectolitre (liquid) = 2·2 gallons.

Hectolitre (dry) = 2·75 bushels.

Millimetre = 0·0394 inches.

Metre = 39·37 inches.

Kilometre = 0·621 mile.

Cubic metre (stère) = 35·31 cubic feet.

Hectare = 2·47 acres.

Square kilometre = 0·386 square mile.

## NOTE ON THE SPELLING OF PLACE-NAMES

IN Albania the spelling of names is phonetic (consonants as in English, vowels as in Italian, ñ = the Spanish ñ in *mañana*).

In Bulgaria the names are transliterated according to the English phonetic equivalents of the Bulgarian characters.

In Greece the names are transliterated according to the system adopted by the Hellenic Society :

### VOWELS

$\alpha$  = a

$\epsilon$  = e

$\eta$  = e

$\iota$  = i

$\omicron$  } = o

$\omega$  }

$\upsilon$  = y

$\alpha\iota$  = ai

$\epsilon\iota$  = ei

$\omicron\iota$  = oi

$\upsilon\iota$  = ui

$\omicron\upsilon$  = ou

$\alpha\upsilon$  } = {af or av,

$\epsilon\upsilon$  } = {ef or af

### CONSONANTS

$\beta$  = v

$\gamma$  = g

$\gamma\gamma$  = ng

$\gamma\kappa$  = nk

$\gamma\chi$  = nch

$\delta$  = d

$\zeta$  = z

$\theta$  = th

$\kappa$  = k

$\lambda$  = l

$\mu$  = m

$\nu$  = n

$\xi$  = x

$\pi$  = p

$\rho$  = r

$\rho\rho$  = rrh

$\rho$  = rh

$\sigma, s$  = s

$\tau$  = t

$\phi$  = ph

$\chi$  = ch

$\psi$  = ps

$\mu\pi$  = b

The rough breathing ' is written ' h '.

In Serbia the names are spelt in the Roman (Croatian) form. The following list shows pronunciation: *c* = *ts*; *č* = approximately *t* as in *creature*; *č* = *ch*; *dž*, *dj*, *gj* = *j* as in *jam*; *j* consonantal = *y*; in diphthongs = *i*; *ž* = *z* as in *azure*; *š* = *sh*.

In each system certain exceptions have been made, either for convenience (especially in frontier districts) or in deference to convention.

In the Austrian Staff Maps of this region a conventional spelling is used, based on the Croatian alphabet with the additional letters, *š*, *ž* = *th*.

*The index to this volume should be consulted as a guide to the syllables of names on which stress falls, which have been indicated (so far as possible) by accents, thus—Lárisa. These stress accents have not been inserted in the text.*

# ITINERARIES

## ROADS AND TRACKS

### SUMMARY

Route No.	PAGE
1. Larissa—Katerini—Plati—Salonica . . . . .	103
2. Servia—Katerini . . . . .	106
3. Ellassona—Katerini . . . . .	108
4. Ellassona—Livadi . . . . .	109
5. Ellassona to Leftokarya and Kalyvia Skotinas . . . . .	110
6. Tempe—Rhapsani—Nezero . . . . .	111
7. Larissa—Ellassona—Servia—Kozani . . . . .	112
8. Larissa—Ellassona ( <i>via</i> Xerias defile) . . . . .	117
9. Larissa—Diskata (for Grevena) . . . . .	119
10. Larissa—Volo . . . . .	121
11. Larissa—Lamia . . . . .	122
12. Rizomylo—Velestino—Phersala . . . . .	127
13. Trikkala—Phersala . . . . .	127
14. Larissa—Trikkala—Metzovo . . . . .	128
15. Karpenisi—Karditza . . . . .	133
16. Arta—Agrafa—Karpenisi . . . . .	135
17. Arta—Trikkala ( <i>via</i> Mouzaki) . . . . .	137
18. Liaskovo—Trikkala ( <i>via</i> Smigos Valley) . . . . .	140
19. Arta—Vitzista . . . . .	141
20. Arta—Trikkala ( <i>via</i> Vitzista) . . . . .	142
21. Liaskovo—Vitzista . . . . .	144
22. Vitzista—Vlacho Kastania . . . . .	145
23. Vitzista—Vlacho Kastania . . . . .	146
24. Kalarrhytai—Arta . . . . .	147
25. Pramanta—Gardiki—Dragovisti ( <i>via</i> Stavros Pass) . . . . .	149
26. Arta—Salachora . . . . .	150
27. Yanina—Arta ( <i>via</i> Pentepigadia) . . . . .	150
28. Yanina—Arta ( <i>via</i> Philippiada) . . . . .	152
29. Yanina—Prevesa . . . . .	155
30. Louros Mikro—Paramythia . . . . .	156
31. Prevesa—Paramythia . . . . .	156
32. Yanina—Parga ( <i>via</i> Souli) . . . . .	158
33. Parga—Paramythia . . . . .	160
34. Santi Quaranta—Sayada Bay—Parga . . . . .	161
35. Gomenitza—Paramythia . . . . .	162
36. Sayada Bay—Yanina . . . . .	163
37. Santi Quaranta—Yanina . . . . .	166
38. Santi Quaranta—Valona . . . . .	169
39. Tepeleni—Delvino . . . . .	171
40. Georgioutzades—Tepeleni ( <i>via</i> Argyrokastro) . . . . .	172

Route No.	PAGE
41. Tepeleni—Chimara . . . . .	173
42. Valona—Chimara—Santi Quaranta . . . . .	174
43. Yanina—Valona . . . . .	176
44. Argyrokastro—Premeti . . . . .	180
45. Argyrokastro—Han Delvinaki . . . . .	181
46. Valona—Koritzza . . . . .	181
47. Yanina—Messiafor Han—Premeti—Berat . . . . .	189
48. Yanina—Han Kalivaki—Koritzza—Monastir . . . . .	190
49. Yanina—Messiafor Han . . . . .	194
50. Salonica—Verria—Kozani—Grevena—Yanina . . . . .	195
51. Yanina—Kalarrhytai . . . . .	203
52. Kalarrhytai—Chaliki and Dragovisti . . . . .	204
53. Kozani—Kastoria—Koritzza . . . . .	206
54. Kastoria—Florina . . . . .	209
55. Kozani—Monastir . . . . .	210
56. Kalabaka—Ostrovo . . . . .	211
57. Ostrovo—Nea Smolia . . . . .	212
58. Kalabaka—Velemisti—Dimnitza . . . . .	213
59. Kalabaka—Asproklisia—Dimnitza . . . . .	215
60. Kalabaka—Mavreli . . . . .	216
61. Trikkala—Nea Smolia . . . . .	217
62. Servia—Dimnitza—Grevena . . . . .	218
63. Diskata—Elassona . . . . .	219
64. Vodena—Verria . . . . .	221
65. Salonica—Yeniye Vardar—Vodena—Monastir . . . . .	223
66. Monastir—Novak . . . . .	230
67. Monastir to Holeven and Buf or Florina . . . . .	231
68. Monastir—Ochrida—Struga . . . . .	233
69. Monastir—Krčova—Gostivar—Tetovo—Üsküb . . . . .	234
70. Krčova—Kruševo . . . . .	238
71. Monastir—Prilip . . . . .	239
72. Prilip—Kruševo . . . . .	240
73. Prilip—Krčova—Dibra . . . . .	241
74. Prilip—Veles . . . . .	243
75. Prilip—Krivolak—Ishtib (with branch to Vinicani-Gradsko) . . . . .	244
76. Salonica—Karasuli—Doiran . . . . .	247
77. Salonica—Doiran—Strumitsa (with branch to and from Gevgeli) . . . . .	249
78. Gevgeli—Petrovo—Demir Kapu . . . . .	254
79. Strumitsa—Ishtib . . . . .	256
80. Ishtib—Veles . . . . .	258
81. Veles—Üsküb . . . . .	259
82. Ibrahimovce—Kumanovo . . . . .	260
83. Ishtib—Kumanovo . . . . .	261
84. Ishtib—Stracin . . . . .	262
85. Üsküb—Gyueshevo . . . . .	263
86. Gyueshevo—Sofia . . . . .	266
87. Kumanovo—Kratovo . . . . .	270
88. Egri Palanka—Kameniča . . . . .	271
89. Ishtib—Koçana—Carevo—Juma'-i-Bala . . . . .	271
90. Ishtib—Kara Orman—Vinica (and junction with Koçana— Carevo road) . . . . .	274
91. Carevo—Nevestino . . . . .	275
92. Strumitsa—Pehčevo—Carevo . . . . .	277



Route No.	PAGE
93. Pehčevo—Bresnitsa (and junction with Seres—Juma'i-Bala road)	280
94. Strumitsa—Petrich—Karasu Bridge	281
95. Doiran—Demir Hisar	282
96. Salonica—Seres—Drama	284
97. Seres—Doiran (with branches to Seres—Juma'i-Bala road)	287
98. Seres—Demir Hisar—Juma'i-Bala	289
99. Juma'i-Bala—Dupnitsa—Sofia	293
100. Seres—Karaköi—Nevrokop	296
101. Nevrokop—Razlog—Juma'i-Bala	297
102. Nevrokop—Dobrinishte—Yakoruda—Banya—Tatar Bazarjik	300
103. Nevrokop—Dospad Han—Batak—Peshtera	302
104. Nevrokop—Dospad—Dovlen	305
105. Peshtera—Tatar Bazarjik	307
106. Peshtera—Philippopolis	308
107. Demir Hisar—Karaköi	309
108. Marnopole—Lyalovo	310
109. Karasu Bridge—Melnik—Nevrokop	311
110. Kreysna Defile—Razlog	312
111. Kocherinovo—Rila—Samokov	313
112. Kustendil—Dupnitsa	315
113. Dupnitsa—Samokov	316
114. Radomir—Samokov	317
115. Samokov—Sofia	319
116. Samokov—Ikhtiman	321
117. Samokov—Tatar Bazarjik	322
118. Salonica—Pazarkia—Chai Aghizi	324
119. Chai Aghizi—Seres	325
120. Chai Aghizi—Angista (with branch to Porna)	327
121. Letere—Pravishka—Kavalla (with branches to Angista, Fotolivo, and Drama)	328
122. Kavalla—Drama—Nevrokop	330
123. Drama—Dospad	332
124. Kavalla—Xanthi	334
125. Kalamuti—Xanthi	336
126. Porto Lagos—Xanthi	336
127. Xanthi—Pashmakli	337
128. Pashmakli—Dovlen	339
129. Pashmakli—Chepelare	340
130. Chepelare—Philippopolis	342
131. Xanthi—Gumuljina	345
132. Porto Lagos—Gumuljina	346
133. Gumuljina—Kirjali (with branch to Kushi Kuvak)	346
134. Kirjali—Haskovo	348
135. Gumuljina—Adrianople	351
136. (Gumuljina)—Papasköi—Mustafa Pasha	353
137. (Gumuljina)—Papasköi—Hebibchevo	355
138. Dedeagach—Gumuljina	356
139. Dedeagach—Demotika—Adrianople (with branches to Enos, Kashan, and Uzun Köprü)	358
140. Demotika—Ortaköi	363
141. Sofia—Tatar Bazarjik—Philippopolis—Haskovo—Hebibchevo—Mustafa Pasha—Adrianople	364

Route No.	<i>Routes in Chalkidike.</i>	PAGE
142.	Salonica—Vasilika—Galatista—Polygyros . . . . .	387
143.	Polygyros—Vrasta—Ravenikia—Larikovi—Mt. Cholomonda— Resetnikia . . . . .	390
144.	Resetnikia—Kaloron Ōros—Aponomi—Myrioftyton—Pinakia . . . . .	393
145.	Circuit of Cassandra . . . . .	396
146.	From Isthmus of Cassandra to Isthmus of Athos . . . . .	398
147.	Circuit of Longos . . . . .	400
148.	Circuit of Athos . . . . .	402
149.	Erisos—Izvoron—Stavros—Vrasta . . . . .	404

*Minor Routes in the Region between Salonica, Doiran, and the Struma.*

150.	Salonica—Kukush and the Doiran—Demir Hisar Route . . . . .	407
151.	Salonica—Lozhista and the Seres-Doiran Route . . . . .	409
152.	Salonica—Kopriva Bridge . . . . .	411
153.	Salonica—Dragos . . . . .	412
154.	Langaza—Komaryan Bridge . . . . .	413
155.	Langaza—Suho—Nigrita—Apidia . . . . .	414
156.	Langaza—Klisali—Nigrita . . . . .	415
157.	Vrasta—Nigrita . . . . .	416

NOTE

Altitude (alt.) is given in feet above sea-level, unless otherwise stated.

## ROUTE 1

LARISSA—KATERINI—PLATI—SALONICA, 102½ miles

North of Tempe defile this route is the same as that of the railway from the E. end of the defile of Tempe to Salonica. In a map on which a Greek officer has marked the nature of the roads of this region he does not indicate it as suitable for wheeled traffic. A military writer has recently spoken of it as a route which does not lend itself to operations of importance. Von der Goltz speaks of it as a narrow road not passable for cannon and transport, so that the Turkish army in 1897 had to bring up all its artillery by Servia and Elassona.

All this applies to the route N. of Tempe, as far as Katerini.

From Larissa to and through the defile of Tempe there is a good chaussée; but so soon as this has issued from the defile on to the low lands at the mouth of the Salamvria river, it becomes little better than a track. The road through Tempe keeps on the S. bank of the river. For the defensible character of Tempe, see p. 27.

The mileage is reckoned from the outskirts of the town of Larissa. The times where given are those of the walking pace of a horse.

miles	
0	<b>Larissa</b> , alt. 230 ft. Road goes NNE. out of the town.
2	Road crosses the Tempe railway. Road leaves the railway.
4	Road crosses the <b>Asmaki</b> river by a bridge; alt. about 210 ft.
4½	An alternative and somewhat shorter road leaves main road on l., and rejoins it 2 miles farther on. It would probably be preferable in dry weather, the main road in the wet season.

miles

- 6 $\frac{1}{4}$  Road reaches some hills and runs along the foot of them, having the **Nessonis** marsh (alt. 210 ft.) immediately on its l. or W. side.
- 11 Road crosses the Larissa-Tempe railway. Alt. 302 ft.
- 15 **Chatzobashi.** Road again crosses railway.
- 16 Road again crosses railway. Alt. 62 ft.
- 16 $\frac{1}{2}$  **Baba.** Road strikes the river and enters the defile of **Tempe.** River is about 50 yards wide, and for the most part deep. A road to **Ambelakia** ascends by zigzags to the r., 1 $\frac{1}{2}$  miles in direct line, but much longer by the road.
- 21 $\frac{1}{2}$  Road issues from defile of Tempe. Alt. 58 ft. 1 hr. 18 min. from Baba.
- 22 Road crosses the Salamvria (Peneus) river by a ferry (wooden bridge broken in 1912) to the N. side. 1 $\frac{3}{4}$  hrs. from Baba.
- 22 $\frac{1}{2}$  Road to Rhapsani (see Route 6) branches to l. up the mountain.  
Route now runs close to the railway for several miles. The plain here is very muddy in the wet season.
- 26 $\frac{3}{4}$  **Papapouli.** Ferry over the **Potamouli** river.
- 30 **Derbina,**  $\frac{1}{2}$  mile E.
- 32 **Platamona,** alt. 258 ft. 3 hrs. 50 min. from Baba. Very good spring just before arriving at the hill. Strong defensive position on the road here.
- 32 $\frac{3}{4}$  The road branches here. One branch (A) goes along the coast. It would probably be very bad in the wet season. The region through which it passes is very unhealthy. The other (B) goes along the foot-hills of Olympus.

miles

## ROUTE (A)

- 33 $\frac{3}{4}$  **Skala Skotinas.** Road crosses a river.  
 35 $\frac{1}{2}$  **Skala Leftokaryas,** 4 hrs. 57 min. from Baba.  
 38 $\frac{1}{4}$  **Skala Litochori.**  
 42 $\frac{1}{2}$  **Hagios Theodoros.**  
 48 $\frac{1}{2}$  Track crosses the **Mavronero** river.  
 51 $\frac{1}{2}$  **Katerini,** alt. 82 ft.

## ROUTE (B)

- 34 **Kalyvia Skotinas** (see Route 5 at mile 21), alt. about 130 ft.  
 Here a track to Ellassona runs up the valley to the W. (see Route 5, miles 21-0).  
 34 $\frac{3}{4}$  Track crosses a river.  
 36 **Leftokarya** (see Route 5). Alt. 1,205 ft. Hence for some miles the road crosses a series of ridges and valleys.  
 40 **Litochori,** alt. about 490 ft.  
 40 $\frac{1}{4}$  Road crosses a river.  
 46 **Malathria,** alt. about 130 ft. 1 hr. 25 min. from Litochori. Many springs just below the village. Road hence to Katerini runs over the plain.  
 48 $\frac{3}{4}$  **Stipi,** alt. about 80 ft.  
 49 $\frac{3}{4}$  Road crosses the **Mavronero** river. 2 $\frac{3}{4}$  hrs. from Litochori.  
 51 $\frac{3}{4}$  **Katerini,** alt. 82 ft. 3 $\frac{1}{4}$  hrs. from Litochori. Junction with Route (A), above.

Hence the route proceeds for 4 miles along the plain of Katerini.

- 55 $\frac{3}{4}$  Route enters hilly country. 4 hrs. 8 min. from Litochori. **Mikroyannis** about  $\frac{1}{2}$  mile W. of the track.  
 57 $\frac{1}{4}$  **Kitros,** alt. about 262 ft. 5 hrs. 23 min. from Litochori.

Road proceeds over ridges and stream valleys to—



miles

61 $\frac{1}{4}$ 

**Eleftherochori**, alt. about 490 ft. From the *Skala* of this place a traveller to Salonica would certainly take a boat, as the land route involves for the greater part of the year a great detour to get round the marshes at the mouths of the *Vistritza* and *Vardar* rivers. The track proceeds across ridges and valleys.

65 $\frac{3}{4}$ 

**Libanovo**, alt. about 100 ft. Route enters the plain of Salonica. It then runs due N.

67 $\frac{3}{4}$ 

**Milovo**, alt. about 50 ft. Cross river *Vistritza* by a ferry (no bridge or ford is marked there). This was the route taken by the right wing of the Greek army operating from *Katerini* in 1912.

Track goes N. across the plain.

69 $\frac{1}{4}$ 

**Tzinaphoro**, alt. about 50 ft.

71 $\frac{1}{2}$ 

**Trikkala**, alt. about 50 ft.

74 $\frac{3}{4}$ 

**Plati**, alt. about 40 ft.

75

Track crosses the Salonica—Monastir railway.

[Distances from this point along the railway towards Salonica are :—

Bridge over the Kara Azmak river 1 mile.

„ „ „ *Vardar* „ . 7 $\frac{3}{4}$  miles.

„ „ „ *Galiko* „ . 14 $\frac{1}{2}$  miles.

Salonica . . . . . 20 $\frac{3}{4}$  miles.]

76 $\frac{1}{2}$ 

Track joins the *chaussée* from *Verria* to Salonica (see Route 50 at mile 26).

102 $\frac{1}{2}$ 

**Salonica.**

## ROUTE 2

### SERVIA—KATERINI

#### (A) VIA LIVADI, 39 $\frac{1}{2}$ miles

The first part of the road as far as *Livadi* and for 4 $\frac{1}{2}$  miles farther on, until it joins the road from *Elassona* to *Katerini*, is an elevated mountain track suitable, at most, for pack

animals. For rest of the road to Katerini see note on Route 3.

The military importance of this route is that it might be used from either end to turn a defence of the Sarandaporon (Volustana) pass.

The time given is that of the walking pace of a horse.

miles	
0	<b>Servia</b> (Serfije), alt. 1,421 ft. Track goes S. out of the town, and then bends SE.
3 $\frac{1}{2}$	<b>Labanitza</b> , alt. about 2,950 ft.
5 $\frac{3}{4}$	<b>Neochori</b> , alt. about 3,000 ft. From here to Livadi the track ascends and descends high ridges with stream valleys between them.
8 $\frac{3}{4}$	<b>Vrysi</b> , alt. about 2,950 ft.
12 $\frac{3}{4}$	<b>Livadi</b> (Vlacholivadi), alt. 3,224 ft. 5 hrs. from Servia. Locality very rugged. Climate very severe in winter.
17 $\frac{1}{4}$	Track joins the road from Elassona to Katerini (see Route 3 at mile 16 $\frac{3}{4}$ , where the remainder of this route is described).
39 $\frac{1}{2}$	<b>Katerini</b> , 10 hrs. from Servia.

(B) VIA VELVENDO, 39 $\frac{1}{4}$

There is another route, a mountain track from Servia to Katerini *via* Velvendo, but it is much more difficult than the route *via* Livadi just given. It ascends to a great height and would be likely to be stopped by snow in winter.

miles	
0	<b>Servia</b> (Serfije), alt. 1,421 ft.
7 $\frac{1}{2}$	<b>Velvendo</b> , alt. about 980 ft.
11 $\frac{1}{4}$	<b>Vitveni</b> , alt. about 1,640 ft.
13 $\frac{3}{4}$	<b>Katafiyi</b> , alt. about 2,500 ft.
18 $\frac{3}{4}$	Alt. about 4,500 ft.
23 $\frac{1}{4}$	Alt. about 4,600 ft.
27 $\frac{3}{4}$	<b>Dranista</b> , alt. 1,920 ft.
39 $\frac{1}{4}$	<b>Katerini</b> , alt. 72 ft.

## ROUTE 3

## ELASSONA—KATERINI, 39 miles

This route was roughly made into a road for wheeled vehicles in 1886, but fell into a bad state between that year and 1897, when it was reconstructed in a better form. Between that date and 1912 it fell back into a bad state; and a correspondent with the Greek army in 1912 says that the journey from Elassona to Katerini, which should only have taken a few hours, took two days. The road was almost impassable owing to enormous masses of shale which had slipped down on to it from the mountains. He could not imagine how the Greek artillery managed to get over the pass at that time. But the Greeks did take artillery by it in that year.

Times are those of the walking pace of a horse.

miles	
0	<b>Elassona</b> , alt. 889 ft. Road runs N. up the valley of the <b>Elassonitikos</b> river, a branch of the Xerias.
1½	Bridge over the Ellassonitikos river, alt. 915 ft. Road ascends a ridge.
3½	Summit of ridge, 1,740 ft. (see Route 7 at mile 29½).
4	Road to Sarandaporon pass and Servia (Serfije) branches off to the l. (see Route 7 at mile 30).
8	Road crosses upper part of <b>Sarandaporos</b> river by a bridge. Alt. about 1,640 ft. <b>Pazarli</b> village, ½ mile to r. of road.
9¼	Road crosses another branch of the same river by a bridge. Alt. about 1,470 ft.
10	Road crosses a third branch of the same river by a bridge. Alt. about 1,570 ft.
11¼	Track to Livadi and Servia branches off (see Route 4). Alt. about 1,700 ft. From this point time is reckoned as 40 min. to Pazarli and 3 hrs. to Ellassona.
13¼	<b>Fushinajik</b> , alt. about 1,950 ft.
15	Alt. 2,641 ft.

miles

- |                  |   |
|------------------|---|
| 16 $\frac{3}{4}$ | Road from Servia and Livadi comes in from the W. (see Route 2 at mile 17 $\frac{1}{4}$ ). |
| 19 $\frac{3}{4}$ | <b>Hagios Dimitrios</b> , alt. about 2,060 ft.  |
| 25               | Ruins of <b>Petra</b> on a hill l. of the road.   |
| 31 $\frac{1}{4}$ | <b>Milias Han</b> , alt. about 200 ft.  |
| 39               | <b>Katerini</b> , alt. 82 ft.   |

## ROUTE 4

## ELASSONA—LIVADI, 17 miles

The route, a mountain track for the greater part of the way, follows for the first 11 $\frac{1}{4}$  miles the Ellassona-Katerini road (see Route 3).

Times given are those of the walking pace of a horse.

miles

- |                  |  |
|------------------|--|
| 0                | <b>Ellassona</b> , alt. 889 ft. For description of this part of the route see Route 3.   |
| 11 $\frac{1}{4}$ | Track turns off W. at right angles from the road to Katerini.<br>Route is now a mountain track fit at the best for pack animals.   |
| 12 $\frac{1}{4}$ | <b>Douklista</b> , alt. about 2,100 ft.  |
| 14 $\frac{1}{4}$ | <b>Kalivia</b> , alt. about 1,960 ft.  |
| 17               | <b>Livadi</b> , alt. 3,224 ft. Times in the reverse direction from Livadi as follows :—<br>Douklista, 1 $\frac{1}{2}$ hrs.<br>Junction with Katerini road, 2 hrs.<br>Ellassona, 5 hrs. |

## ROUTE 5

ELASSONA TO LEFTOKARYA AND KALYVIA  
SKOTINAS, 21 miles

## (DIRECT ROUTE TO THE COAST)

This is a mountain track, unsuitable for wheeled traffic. A description of it, written in reference to the threatened Greco-Turkish war in 1886, says: 'From Leftokarya to Ellassona is a mountain road. It goes between mountain walls or along shelves overhanging deep ravines. Rolling stones and rock masses encumber it. Only native mules and horses can go along it. Still, this path was the main route of supplies for the Turkish army at Ellassona. These supplies were kept up with great difficulty by baggage animals.'

A Greek officer who has recently reported on the roads of this region (March 1916) does not suggest that any improvement has been made in this track.

It must be noted that the use of this track in 1886 was made at a time when the Servia-Ellassona and Katerini-Ellassona routes were undeveloped.

miles

0      **Ellassona**, alt. 889 ft.

The track almost immediately after leaving the town begins a long climb to the summit of the pass, running in a NE. direction.

4 $\frac{3}{4}$       Summit of pass, 3,738 ft.

From here the track descends steeply.

6      **Diava** village, alt. 1,968 ft.

7      Track reaches the bottom of a valley, and crosses the stream. Alt. about 1,574 ft.

Track now ascends the valley due E.

10 $\frac{1}{4}$       Summit of a watershed, about 2,820 ft.

Road now descends into the upland plain of Karya (alt. about 2,590 ft.).



miles

- 12 $\frac{1}{4}$  Branch track almost due N. to **Karya**, 1 $\frac{1}{4}$  mile.
- 13 Another branch track to **Karya**, 1 mile. From this point the route begins a long gradual descent down the valley of the **Ziliana** river.
- 14 $\frac{3}{4}$  Alt. 1,968 ft. Branch track SSE. up the mountain side to **Nezero** and **Rhapsani** (see Route 6 at mile 13 $\frac{1}{4}$ ).
- 17 Monastery of **Kanalia**, alt. about 1,300 ft.
- From here a track branches off NE. up the mountain side to the village of **Leftokarya** (alt. 1,240 ft.), 4 miles.
- 21 Main track continues down the valley to—  
**Kalyvia Skotinas**, where it joins the main coast route from Tempe to Katerini (see Route 1, B, at mile 34).

## ROUTE 6

## TEMPE—RHAPSANI—NEZERO

AND JUNCTION WITH ELASSONA—LEFTOKARYA ROUTE,  
13 $\frac{1}{4}$  miles

This is a mountain track by which the position of a force defending the defile of Tempe may be turned.

miles

- 0 The track begins near the E. end of the defile of **Tempe** (see Route 1 at mile 22 $\frac{1}{2}$ ). Alt. 50 ft. From here it winds up the mountain side by a series of zigzags running in a general W. direction.
- 4 $\frac{3}{4}$  **Rhapsani**, alt. about 1,700 ft. The track continues to ascend the mountain.
- 6 $\frac{1}{2}$  Alt. 3,380 ft.
- 8 Descends into the valley of a stream called the **Tzairia**. Alt. about 2,950 ft.

miles	
$8\frac{3}{4}$	Summit of a ridge between Tzairia valley and the valley in which Lake Nezero lies. Alt. about 3,600 ft.
$9\frac{3}{4}$	Plain of Lake <b>Nezero</b> , alt. 3,113 ft. The track goes along the flat E. shore of the lake for $1\frac{1}{4}$ miles, and then up hill into the small town of—
$11\frac{1}{2}$	<b>Nezero</b> , alt. 3,440 ft. Steep descent from the town.
$13\frac{1}{4}$	Junction with the Elassona-Leftokarya track (see Route 5 at mile $14\frac{3}{4}$ ). Alt. 1,968 ft.

## ROUTE 7

LARISSA—ELASSONA—SERVIA—KOZANI,

$69\frac{1}{2}$  miles

This is the most important of the military routes between Thessaly and Macedonia. It crosses the Olympian range twice; first over the comparatively low ridge which separates the Thessalian plain from that of Elassona, and secondly over the much more formidable ridge (the ancient Cambunian mountains) which borders the valley of the Vistritz river on the S.

In 1912 the whole of this road was possible for motor traffic; and, as it is the main military route between Greece and her newly acquired possessions in Macedonia, it is almost certain that it has been kept in good repair. At the same time the best Greek roads will not stand the unusually heavy traffic of the artillery and transport required for a large modern army. To compensate for this, mending material lies in plentiful quantities beside any road which passes through the mountains of this region.

The main Turkish advance against Greece in the war of 1897, and the main Greek advance against Macedonia in 1912, took place along this line.

Times given are those of the walking pace of a horse.

miles

0 **Larissa**, alt. 230 ft.

(Distances are measured from the outskirts of the town.)

The road crosses the great bridge over the Salamvria (Peneus) river and proceeds in NNW. direction across the plain.

1½ **Yannouli** village, alt. 253 ft.

On leaving the village the road divides, the more westerly branch (A) leading to Tournavo, and the more easterly (B) direct to the Melouna pass. Of these (A) is the better route, though slightly longer.

## ROUTE (A)

Road proceeds over plain.

6 **Kasani**, alt. 296 ft.

9½ Bridge of Tournavo over the Xerias river.

10 **Tournavo** (officially Tyrnavos), alt. 287 ft., a small town.

From here a mountain path, by which the Melouna pass may be turned, leads over the mountain Akrotiri to Skomba.

From Tournavo to the Melouna pass the road runs under the steep E. slope of Mt. Akrotiri (Losfaki). A force holding these heights commands the road (Von der Goltz).

14½ Alternative route (B) joins this route.

## ROUTE (B)

Probably a much inferior road, especially in wet weather.

1½ **Yannouli**, alt. 253 ft. Road proceeds along the plain.7½ **Kazaklar**, a large village. Alt. 280 ft. From this point this route is marked in the official Greek survey as a track.

miles

9 $\frac{3}{4}$  Track crosses **Xerias** (Titaresios) river. No bridge marked on official map.

11 Track crosses a large branch of the **Mati** river.

13 $\frac{1}{4}$  Track joins alternative route (A).

The distances from this point onward are continuous with those of Route (A).

16 **Mati** river. The road crosses the river just where it issues in large volume from the hill-side.

17 $\frac{1}{2}$  Road (alt. 364 ft.) begins the ascent of the Melouna pass.

The road through the pass is now a motor road, and the passage of the pass, which is not lofty, as passes go in this country, would present no physical difficulty. But if the road should get into bad repair, there is a steep bit just below the summit on the N. side which offered considerable difficulty to the passage of the Turkish artillery in 1897.

Von der Goltz points out that the pass is very capable of defence by a force holding the comparatively low ridges (1,800 ft. to W. and 2,800 ft. to the E.) on either side of the pass.

20 $\frac{3}{4}$  Summit of **Melouna** pass, 1,771 ft.

22 $\frac{1}{4}$  Alt. 859 ft. Road crosses the plain of Ellassona.

26 **Ellassona**, alt. 889 ft. The town was until 1912 a mere collection of hovels. It may have been improved since then.

Time to Tournavo from Ellassona, by Route A, 3 hrs. 40 min.

Time to Larissa from Ellassona, by Route A, 5 hrs. 40 min.

Road runs N. up the valley of the **Ellassonitikos** river, a branch of the **Xerias**.

27 $\frac{1}{2}$  Bridge over the Ellassonitikos river. Alt. 915 ft.

Road ascends a ridge.

29 $\frac{1}{2}$  Summit of ridge, 1,740 ft.

miles

Von der Goltz points out that this ridge affords a strong defensive position against a force coming from the S. A French account of the defence of this position by the Turks in 1912 speaks of it as very formidable.

30 Road to Katerini branches off to the r. (see Route 3 at mile 4).

31½ **Eleftherochori** village, alt. 1,580 ft.,  $\frac{1}{4}$  m. W. of the road.

31¾ Alt. 1,647 ft.

32¼ Road crosses a stream. Alt. 1,557 ft.

34 Road crosses a small branch of the upper part of the Sarandaporos river, a tributary of the Xerias, by a bridge. Alt. 1,262 ft.

34½ Road crosses another small branch of the Sarandaporos river. The road now ascends a ridge, and then descends into—

37¼ Valley of another branch of the Sarandaporos river. Alt. 1,458 ft.

37½ **Haji Zogu Han.**

From this point begins the ascent of the pass of the Cambunian range, which separates the Xerias basin from that of the Vistrizta (Haliacmon) river. The ancient name of the pass was Volustana, and that name survives to a certain extent. But its common modern name is Sarandaporon, or Kirkgechid. It has been described by an eyewitness of the Greek attack on it in 1912: 'Coming from the S. the defile is preceded by a plateau which descends gently towards Ellassona for about 7 kilometres. This plateau is covered with brushwood and shrubs. On each side of this plateau are deep precipitous ravines. The plateau must consequently be attacked in front. Beyond, i.e. N. of, the plateau, the road passes along a sort of ledge, with the mountain rising almost perpendicularly on the one side, and falling away



miles

steeply on the other. The road zigzags up the valley, and each zigzag is commanded from the one above it. The position is consequently a most formidable one for defence against a force attacking from the S.'

38½

Road crosses a stream. Alt. 1,486 ft.

41¼

**Yenihan.**

42¼

Alt. 2,373 ft.

45½

**Sarandaporon Han**, alt. 2,558 ft.

47

**Kastania Han**, alt. 2,842 ft.

47½

Summit of **Sarandaporon** pass, 3,117 ft.

48¾

Alt. 2,792 ft. Road descends steeply into valley of Vistritza river.

51½

Junction with road from Grevena to Servia (Route 62 at mile 3¾). Alt. 1,808 ft.

Soon after this the road, which has been going NW., turns N. and then NE.

54¾

**Servia** (Serfije), alt. 1,421 ft. The road goes NW. out of the town.

59

Bridge over the **Vistritza**, alt. 905 ft.

Almost immediately after passing the bridge a long climb begins over the ridge which separates the Vistritza valley from that of the Sari Göl ('Yellow Marsh').

60¼

Alt. 1,316 ft.

62

**Kechiler**, alt. 1,453 ft.

65

**Jijiler**, alt. 2,090 ft. Road turns WNW.

65½

Route joins main road Salonica-Verria-Kozani-Yanina, which enters it from N. (r.) (see Route 50 at mile 81).

66

Summit of the ridge, 2,113 ft.

69¼

**Kozani.** Time, Kozani-Servia, 3½ hrs.

## ROUTE 8

## LARISSA—ELASSONA

## VIA THE XERIAS DEFILE

This is an important alternative route to that through the Melouna pass. It was used by the Turks in their invasion of Thessaly in 1897, and by the Greeks in their advance northwards in 1912; but in both cases the main advance was through the Melouna pass. This was the cart road from Larissa to Servia before the road through the Melouna pass was constructed in recent years. The route coincides partly with that of the annual migration of the Vlachs (see Route 9).

The distances are measured from the bridge at Larissa.

miles

0      **Larissa**, alt. 234 ft. Route 7 is followed as far as—  
10      **Tournavo**, alt. 287 ft. Road runs SSW. out of the town along the foot of the hills which stand W. of it.

12½      Entrance to the defile of the **Xerias** river. Alt. about 280 ft. For 2 miles this defile is very narrow, with almost perpendicular sides. The river leaves only just enough room for the road. It contrasts with the Melouna pass in this respect—that in the case of the Melouna an army crossing from the N. finds the road S. of the pass commanded by a ridge above it, while in the Xerias pass the road is commanded by heights N. but not S. of the pass.

Road runs due W. through the defile, and then continues to follow closely the N. bank of the Xerias.

17½      **Damasi** on the opposite bank of the river. Alt. about 290 ft.

From this place a short route of great military importance leads into the Thessalian plain, by the

miles

pass of **Reveni**. It affords a possible means of turning the defile of the Xerias by an assailant coming either from the N. or from the S. It was occupied by the Greeks in 1897.

The pass itself is over a low col (about 490 ft.)  $2\frac{1}{4}$  miles S. of Damasi. The road then descends into a small plain, from which there are easy tracks (a) due E. through the defile of the Salamvria (Peneus) river to **Gounitza**,  $8\frac{1}{4}$  miles ( $1\frac{1}{2}$  hrs.) from Damasi; and (b) due S. to **Koutzochiri** on the Salamvria,  $8\frac{1}{4}$  miles from Damasi. See Route 14 at mile  $10\frac{1}{4}$ .

Road continues to follow the N. bank of the Xerias river, and is marked for some distance in the Greek official survey as a road of the second or third order.

 $22\frac{3}{4}$ 

**Mologousta**, alt. about 490 ft. From here are alternative routes to Ellassona, (A) and (B).

#### ROUTE (A)

Here the track leaves the river and begins a gradual climb.

 $26\frac{3}{4}$ 

**Domenikon**, alt. about 880 ft.

Road descends into the valley of a small stream (alt. about 550 ft.) and then makes a long gradual ascent up a ridge.

 $30\frac{1}{4}$ 

Summit of ridge, about 1,540 ft.

 $31\frac{1}{2}$ 

**Oba** village, alt. about 880 ft. Immediately beyond this village the road enters the plain of Ellassona, crossing two small streams just after entering the plain.

 $34\frac{1}{2}$ 

**Ellassona**, alt. 889 ft.

#### ROUTE (B)

This is probably the old cart route from Larissa to Servia mentioned in the introduction to this route;

miles

for, though it is longer than Route (A), the gradients are much easier.

22 $\frac{3}{4}$  **Mologousta**, alt. about 490 ft. Cross the Xerias river. Track runs SW.

24 $\frac{1}{4}$  **Vlachoyannis**, alt. about 260 ft. Track turns almost due N. parallel with W. bank of Xerias river ; and later of the Sarandaporos.

29 $\frac{3}{4}$  **Pertori**, alt. about 550 ft. Track crosses the Sarandaporos. Path to Nea Smolia from here (see Route 61 at mile 13 $\frac{1}{4}$ ).

31 $\frac{3}{4}$  **Magoula**, alt. about 550 ft. Track now follows the Elassonitikos river.

33 $\frac{3}{4}$  **Konisti**, alt. about 730 ft. Track continues along the river.

35 $\frac{3}{4}$  **Tzernivo**, alt. about 750 ft.

36 $\frac{3}{4}$  Track joins the Elassona-Diskata route (see Route 63 at mile 18).

40 $\frac{1}{4}$  **Elassona**, alt. 889 ft.

## ROUTE 9

LARISSA—DISKATA (FOR GREVENA), 52 $\frac{1}{2}$  miles

This is the route by which the Vlach inhabitants of what was formerly the Turkish Pindus to the W. of Grevena make their annual migration to and from Thessaly and NE. Greece. As far as Diskata it is a pack-horse track, and it may be safely assumed that it is a good one, though there is no report of any traveller from W. Europe having used it. The part of it which corresponds with the Diskata-Elassona route (see Route 63) is regarded as an important military way, though it is not a made road. Beyond Diskata it runs first along the branch of the military chaussée from Kozani to Grevena which runs to Diskata and no farther ; and then along the Kozani-Grevena chaussée itself. The place at

which the Vlachs assemble for their migration is Tournavo rather than Larissa.

miles

- |                  |  |
|------------------|--|
| 0                | <b>Larissa</b> , alt. 230 ft. The road goes over the great bridge on the Salamvria river, following Route 7 NNW. over the plain to Tournavo.   |
| 10               | <b>Tournavo</b> , alt. 287 ft. Route turns SW. along the foot of the hills to—   |
| 12 $\frac{1}{4}$ | The entrance to the great defile of the <b>Xerias</b> river, alt. about 300 ft.<br>Route goes through this defile, keeping immediately on the N. bank of the river, which for 2 miles leaves only just space enough for the road, till it arrives opposite to— |
| 17 $\frac{1}{2}$ | <b>Damasi</b> , a village S. of the river, alt. about 290 ft.<br>Road continues up the river, still on its N. bank.  |
| 22 $\frac{3}{4}$ | <b>Mologousta</b> , alt. about 490 ft.<br>Road now turns due N. and leaves the river, skirting the E. edge of a rather extensive plain which it now enters, and running up to—   |
| 26 $\frac{3}{4}$ | <b>Domenikon</b> , alt. about 880 ft. Road branches NW. from Elassona route and, still skirting the E. edge of the plain, descends somewhat to cross the Xerias river at—  |
| 30 $\frac{3}{4}$ | <b>Magoula</b> , alt. about 550 ft.<br><br>A track runs SW. to Pertori and Nea Smolia (see Route 61 at mile 13 $\frac{1}{4}$ ).<br><br>The road now runs N., still over the plain to—  |
| 33 $\frac{3}{4}$ | <b>Paleokastro</b> , alt. about 590 ft. Then it leaves the plain and goes over a ridge, alt. about 1,140 ft., to—  |
| 37               | <b>Kephalovrysi</b> , alt. about 820 ft., where it joins the route from Elassona to Diskata (see Route 63 at mile 14 $\frac{1}{4}$ ). Here the road turns W. up a valley, and enters the lofty mountain region which lies about Diskata.                       |



miles

- 39 $\frac{3}{4}$  Track crosses the **Sitar**, a small subtributary of the Sarandaporos. Alt. about 1,120 ft. It then ascends to the head of the valley and mounts a high ridge.
- 44 Summit of the ridge, 2,788 ft. Descend steeply into the valley of the Diskata river.
- 46 $\frac{3}{4}$  Track crosses the **Diskata** river, alt. about 1,870 ft., and turns generally WSW., ascending N. side of the valley.
- 52 $\frac{1}{2}$  **Diskata** (Dhissakata, Ziskatas), alt. 2,520 ft.  
For road from Diskata to Grevena see Route 62 at mile 23 $\frac{1}{2}$ .

## ROUTE 10

LARISSA—VOLO, 32 $\frac{3}{4}$  miles

This used to be a good chaussée the whole way, and it seems to have been kept in good repair; but at the same time it is significant that the official Greek survey of 1909 does not mark it as a first-class road. From Larissa as far as the neighbourhood of Velestino it was used by the Turkish army in 1897 for artillery and transport; and it seems to have stood this heavy traffic. As a through route it has been almost entirely superseded by the Larissa-Volo railway.

miles

- 0 **Larissa**, alt. 230 ft.  
(Distances are measured from the outskirts of the town.)  
Road goes SE. out of the town.
- $\frac{1}{2}$  Road crosses the railway to Volo.
- 6 $\frac{3}{4}$  Road crosses a large stream by a bridge.

From this bridge a track branches off to the right, and runs parallel with the main route at an average

miles

distance of 2 miles from it, and along the slope of the central ridge of Thessaly, as far as Velestino. The Turks sent large bodies of infantry along this route in 1897. No mention is made of its use by artillery.

7½      **Maimouli** village, ½ mile E. of road.

11¼      Road crosses a stream by a bridge.

14¾      **Kililer** village.

18¼      **Gerli**, alt. 203 ft.

Here the road is passing the narrow defensible space between the Kara-dagh and Lake Karla. There is no really practicable military way on the E. or far side of the lake.

23¼      **Rizomylo**, alt. 200 ft. 8 hrs. from Larissa by Turkish cavalry in 1897. Here the road to Velestino branches off. (See Route 12.)

Road, which has hitherto crossed the plain with very little rise and fall, now begins to ascend the low ridge N. of Volo, which connects Mt. Othrys with Mt. Pelion.

27¼      Road crosses railway. Alt. 431 ft.

27¾      Road crosses railway.

28¼      Road crosses railway.

32¾      **Volo**.

## ROUTE 11

### LARISSA—LAMIA

From Larissa to Phersala a carriage road was constructed some years ago, but the road is now reported to be badly kept throughout, and to be in many places impassable for wheeled traffic. It is noticeable that in 1897 the Turkish army seems to have used certain tracks (see below) running parallel with it, as well as the road itself, for the transport of their artillery. The road is not likely to have been improved

since Larissa and Lamia were linked up by railway within the last few years.

The Greek Government also began to make a road from Phersala to Lamia. The most recent reports available speak of this part of it between Phersala and Domoko as not having been finished—culverts, bridges, and metalling incomplete. In 1897, however, the Turkish army seems to have had no difficulty in carrying their artillery and main transport along this piece of road; but unless work has been done since that date, it has in all probability seriously deteriorated. As late as 1910, though it was used for wheeled traffic, and this traffic would be of a comparatively light character, it presented many difficulties, and was only too apt to give way.

From Domoko to Lamia the Government brought the road to completion, and as far as recent reports are concerned, this part of it is a first-class chaussée, as chaussées go in Greece.

There are three routes to Phersala—

- (A) an eastern route ;
- (B) a middle route ;
- (C) a western route.

Of these, all were used by artillery and transport (? wheeled) by the Turkish army in 1897.

In the new Greek survey (A) is marked as a carriage road, and the others as tracks.

In the Austrian map (B) is marked as a carriage road, and the others as tracks.

The times given are according to the walking pace of a horse.

miles

ROUTE (A)

0

**Larissa**, alt. 230 ft.

(Distances are measured from the outskirts of the town.)

Route runs SSE. from the town, and soon begins to mount the gradual ascent to the top of the central

miles

	ridges of Thessaly. The country through which it passes in this part has a gently undulating surface.
3 $\frac{3}{4}$	Alt. 314 ft.
5 $\frac{1}{2}$	<b>Nebegler</b> village, alt. 295 ft.
11 $\frac{1}{2}$	<b>Hisarlik.</b>
13 $\frac{1}{2}$	<b>Bakratzi.</b>
17 $\frac{3}{4}$	<b>Tekes.</b>
19 $\frac{1}{4}$	<b>Tatari.</b>
20 $\frac{3}{4}$	Bridge over Enipeus river, alt. 450 ft.
	In the summer the bed of the stream is mostly dry.
	In winter it may become a formidable torrent.
21 $\frac{3}{4}$	Cross Volo-Trikkala railway. Alt. 449 ft.
23	Cross Phersaliti river.
23 $\frac{3}{4}$	<b>Phersala</b> (officially Pharsalos), alt. 459 ft. Abundant supplies of spring water. Town on a height somewhat detached from the rest of the range. Strategic position important on the great route S.; but can be turned from the W.

## ROUTE (B)

	Route runs due S. out of the town.
0	<b>Larissa</b> , alt. 230 ft.
3	Alt. 272 ft.
14	<b>Sabasi.</b>
18	<b>Tatari.</b> 3 hrs. 50 min. from Larissa.
	From here as Route (A) to—
19 $\frac{1}{2}$	Bridge over Enipeus river. 4 hrs. 25 min. from Larissa.
22 $\frac{1}{2}$	<b>Phersala.</b>

## ROUTE (C)

0	<b>Larissa</b> , alt. 230 ft. Follow Route (B) for 2 miles.
2	Turn SW.
6	<b>Haji Halar.</b>
8	Turn S.

miles	
8 $\frac{1}{2}$	<b>Hasan Tatar.</b>
10 $\frac{3}{4}$	<b>Tzourmakli.</b>
16 $\frac{1}{4}$	<b>Bouglar.</b>
23 $\frac{3}{4}$	<b>Gousgounari</b> , close to which route crosses the Enipeus river.
	Route turns ESE.
25 $\frac{1}{4}$	<b>Vasili.</b>
26 $\frac{1}{4}$	Join routes (A) and (B) just S. of the bridge over the Enipeus.
28 $\frac{3}{4}$	<b>Phersala.</b>
miles by Route (A)	
23 $\frac{3}{4}$	<b>Phersala.</b> Road runs SW. along the foot of the hills.
25 $\frac{1}{2}$	Route crosses outlet of marshy valley of Rizi by a long stone bridge, 50 minutes from Phersala.
27 $\frac{1}{4}$	Route crosses the col of a ridge which projects into the plain.
	Route continues SW. and later S.
32 $\frac{1}{4}$	Ruins of <b>Pryerna</b> on hill E. of road. 1 $\frac{1}{2}$ hrs. from Phersala.
	Route continues S.
	Spring. 2 hrs. from Phersala.
	Route goes up steep ascent of 1,140 ft. to—
38 $\frac{1}{4}$	<b>Domoko</b> (Thaumaci), alt. 1,771 ft. 3 hrs. 55 min. from Phersala. The great defensive position on this route.
	This position can be turned from the E. by the alternative route from Phersala (see below), and from the W. by the pass of the Onochonos river which enters the W. part of the Othrys range from the N. It is, however, very narrow and defensible, and involves a long detour to get behind Domoko. The Greek defence of the Domoko line in 1897 included the defence of this pass.
	Road passes along upland plain, alt. about 1,470 ft.



miles

42 $\frac{3}{4}$ 

Lake **Nezero** or Daoukli (ancient Xynias) to W. of road, 6 miles in circumference.

Road is crossing a dreary elevated plain.

46 $\frac{3}{4}$ 

Alternative route below from Phersala comes in from the E. It is a difficult mountain track only possible for infantry ; but of military importance as affording a route by which the strong position at Domoko may be turned. There is no cross-connection between this and the main route.

The map is very defective in this part, and the notes on this track are only approximately correct.

miles by  
Route (A)

23 $\frac{3}{4}$ **Phersala.**

Track ascends mountain S. of town, and goes S. to—

32

**Karatzali.**

34

**Gerakli.**41 $\frac{1}{2}$ **Drachani.**42 $\frac{3}{4}$ **Palamas.**

44

Track joins the main road.

*Han* by a spring.

48 $\frac{1}{4}$ 

**Phourka** and the Phourka pass, alt. 2,625 ft. 7 hrs. 55 min. from Phersala.

Hence the road makes a continuous descent with frequent zigzags to—

57 $\frac{1}{4}$ **Lamia.**

Times between Lamia and Phersala are quoted as follows :

Phourka, 4 hrs.

Domoko, 8 hrs.

Phersala, 13 hrs.

## ROUTE 12

RIZOMYLO—VELESTINO—PHERSALA,  $26\frac{1}{2}$  miles

With regard to the nature of this road no information is available. As it follows the line of the Velestino-Trikkala railway it is probably only used for purely local traffic.

miles

0	<b>Rizomylo</b> , alt. about 200 ft. (see Route 10 at mile $23\frac{1}{4}$ ).
	Road runs due S. to—
$2\frac{1}{2}$	<b>Velestino</b> , alt. about 320 ft. (For notes on strategic position, see Introduction, p. 32.)
	Road now climbs the ridge connecting Mavrovouni or Kara Dag, part of the central chain of Thessaly, with Mt. Othrys.
$4\frac{3}{4}$	Summit of ridge, 900 ft.
$5\frac{1}{2}$	<b>Persefli</b> , E. of road.
	Road now turns due W.
$12\frac{1}{2}$	Road enters the plain of the Enipeus river.
$18\frac{1}{2}$	<b>Tzifliki</b> .
$20\frac{1}{2}$	<b>Derenkli</b> .
23	Bridge over the <b>Pheraliti</b> or Apidanos river.
$26\frac{1}{2}$	<b>Phersala</b> .

## ROUTE 13

TRIKKALA—PHERSALA

If there ever was a direct through route between these places, it seems to have passed completely out of use, probably owing to the making of the railway. In 1897 the Turkish force from Trikkala, when it had to join the main army near Domoko and Phersala, made its way by a circuitous route, going first along the Larissa road (Route 14) as far as Zarkos, and then along a track which followed the W. edge of the central Thessalian ridge.

## ROUTE 14

LARISSA—TRIKKALA—METZOVO,  $74\frac{3}{4}$  miles

The condition of this road from Larissa to Trikkala is uncertain. It is in name a carriage road, but of late years at any rate has been in such bad condition that persons making the journey have preferred to do it on horseback, using a track which runs parallel to, and N. of it, on the drier land at the foot of the hills. One recent traveller speaks of a part of it near Trikkala as having been practically disused at the time he passed that way. Another speaks of the road between Trikkala and Kalabaka as being very bad. This neglected state of the road is partly due to the fact that goods from Trikkala and Kalabaka to Larissa are largely forwarded by the Trikkala-Velestino-Larissa railway route; and also that in the years before 1913 through traffic through the Metzovo pass was practically stopped owing to the heavy import duties imposed by the Greek Government.

From Trikkala over the pass to Metzovo the road is one for pack animals. As such it used to be a good track, though the climb, especially on the W. side, was severe. But owing to disuse in consequence of the import duties to which reference has been made, the track is reported to have deteriorated before 1913. There is no information available in this country as to whether, since the acquisition of Yanina in 1913, the Greek Government has taken measures to improve the track.

Von der Goltz (*Der Thessalische Krieg*) speaks of the pass of Metzovo as the only practicable pass between Thessaly and Epirus. That is not quite true. There is a practicable passage from Trikkala to Arta by way of the gap at the village of Porta Pazari (see Route 21 at mile 48). The disadvantage of this passage as compared with that over the Metzovo pass is that there are two big climbs instead of one. The times given are those of the walking pace of a horse.

miles

0

**Larissa**, alt. 230 ft.

(Distances are from the outskirts of the town.)

Road goes due W. out of the town.

 $2\frac{3}{4}$ 

Alt. 276 ft.

 $5\frac{3}{4}$ 

Alt. 459 ft.

 $6\frac{1}{2}$ 

Cross a stream. Alt. 310 ft.

 $7\frac{3}{4}$ 

Alt. 348 ft.

 $9\frac{3}{4}$ 

Branch route hence to Tournavo ; very little rise or fall. Times according to walking pace of loaded mule, and distances are reckoned from Koutzochiri,  $\frac{1}{2}$  mile farther along main road.

miles

hrs.

0

0

**Koutzochiri.** $3\frac{3}{4}$  $1\frac{1}{2}$ 

Ferry over Salamvria river at **Gounitza**. Ferry takes 5 mules and 7 or 8 people each journey.

[Direct road, Gounitza to Larissa,  $7\frac{1}{2}$  miles,  $1\frac{1}{2}$  hours. The road is an old causeway.]

8

Crossing of Xerias river.

11

4

**Tournavo.** $10\frac{1}{4}$ 

**Koutzochiri**, alt. 320 ft. The crossing in 1908 was by ferry. The bridge was at this time incomplete. No information as to whether it has been completed since.

Beyond the bridge track branches N. to Damasi (see Route 8 at mile  $17\frac{1}{2}$ ).

The road now runs through the valley which the Salamvria river has formed between the northern range and the low central range of Thessaly.

From this point to Trikkala the rise and fall in the route are so slight that altitudes need not be given.

 $13\frac{1}{2}$ 

Up to this point the track mentioned in the introduction to this route, and the carriage-road, correspond. Then the track bends NW. and N. to **Zarkos**, as

miles

follows. This track is wrongly marked on the Austrian Staff Map.

miles from Larissa	time from Zarkos h. m.
-----------------------	------------------------------

13½

Track leaves the line of the road and goes NW. and later N. to—

15¾

0 0

**Zarkos.**

22¾

1 45

**Klokoto.** A track goes up the valley of the Neochorotiko to join Route 61 (Trikkala-Nea Smolia), at mile 11¾.

29¼

4 25

**Kourbali.** Join road (below).

34¼

6 5

**Trikkala.**

The road, on the other hand, goes along the low ground close to and just N. of the river to near—

22

**Georgonades**, where it crosses a tributary of the Salamvria by a bridge.

24

Bridge over Trikkalinos river.

27

Road now follows the course of the Trikkalinos river to another bridge over it.

28½

**Kourbali** village.

33½

**Trikkala**, alt. 394 ft.

From here the road as far as Kalabaka was at one time possible for wheeled traffic, but, since the making of the railway, it appears to have relapsed into its old condition of an indifferent pack-road.

From Trikkala the road turns NW. up the now rapidly narrowing Salamvria valley.

35¼

Road crosses Trikkala-Kalabaka railway.

37½

Road re-crosses railway.

42¼

Road again crosses railway.

46

**Kalabaka**, alt. 820 ft.

Terminus of the Volo-Velestino-Kalabaka railway.

Town stands under the shadow of the great cliffs



miles

of the curious isolated sandstone peaks on which stand the monasteries of the Meteora.

(The times from Kalabaka to Metzovo are those of a notoriously slow traveller on horseback, who had, moreover, a good deal of difficulty with the snow on the pass.)

Two tracks (A) and (B) from Kalabaka up the Salamvria valley. There is no information as to their relative merits.

miles	time from Kalabaka.		
	h.	m.	
46	0	0	<b>Kalabaka.</b>
			On leaving the town the road runs for nearly 2 miles along the foot of the cliffs.
49½			Path to <b>Velemisti</b> branches r. and N. (see Route 58).
51¼	2	0	<b>Han Mourgani.</b> Path to <b>Ostrovo</b> branches r. (see Route 56).
			Road crosses Mourgani river (by a wooden bridge). Alt. 886 ft. Road now runs W., close to and N. of the Salamvria river. From this point the valley contracts.
56½	4	30	<b>Han Kouraneyi</b> , 1,312 ft.
			Track now runs WNW.
62¾	7	15	Bridge over the <b>Koutzouphliani</b> tributary of the Salamvria which comes down from the N., 1,673 ft.
63¼			Track (B), which comes from S. side of Salamvria river, alt. about 1,700 ft., joins the present track.
			(B)
46			<b>Kalabaka.</b>
			Track goes for a mile NW. out of the town, under the cliffs of the Meteora, and coinciding so far with track (A).

miles	time from Kalabaka		
	h.	m.	
47			Track turns W. and a little later SW.
48 $\frac{1}{2}$			Cross the Salamvria river.
49 $\frac{1}{4}$			Track bends sharply NE. along S. bank of Salamvria river to—
51			<b>Han Krya Vrysi</b> ('Cold Spring'), alt. about 880 ft. Proceed W. to—
52			Path leads S. up valley to Pertuli (see Route 22 at mile 32 $\frac{3}{4}$ ).
56 $\frac{3}{4}$			<b>Han Kastania</b> , alt. about 1,080 ft. Cross a stream. Proceed WNW.
64 $\frac{1}{4}$			Cross <b>Salamvria</b> river to N. bank, and join track (A), alt. about 1,700 ft.
			Track now runs W. to—
66 $\frac{1}{2}$	8	35	<b>Han Malakasi</b> , alt. about 1,960 ft. where it crosses by a bridge to the S. bank of the Salamvria river.
66 $\frac{3}{4}$			Track from Chaliki (see Route 52 at mile 6) comes in from SW.
			Route now enters upon the steep ascent of the pass.
68			<b>Karaul Karamanda</b> , alt. about 3,000 ft.
69 $\frac{3}{4}$	10	55	<b>Han Saidpashas</b> , alt. 4,133 ft.
71 $\frac{1}{4}$	12	55	Summit of pass of <b>Metzovo</b> or <b>Zygos</b> , 5,085 ft.
			Track descends hence by a series of zigzags. Snow sometimes renders the pass untraversable in winter. The snow is generally deepest on the E. side of the pass. The latter end of February is usually the worst period for snow. Sometimes the pass is snowed up as early as November, or as late as May. Sometimes it is free of snow in January.
			Half an hour from the summit is a spring.

miles	time from Kalabaka																	
	h.	m.																
74 $\frac{3}{4}$	14	25	<p><b>Metzovo</b>, alt. 2,985 ft. Very important strategic position as commanding both the Metzovo pass on the route from Yanina to Trikkala and Larissa, and also the other pass over Pindus on the great route from Yanina to the Macedonian plain <i>via</i> Grevena (see Route 50 at mile 145<math>\frac{1}{2}</math>).</p> <p>The following times are quoted in the reverse direction from Metzovo :</p> <table><tr><th>h.</th><th>m.</th><th></th></tr><tr><td>0</td><td>0</td><td>Metzovo.</td></tr><tr><td>3</td><td>30</td><td>Han Malakasi.</td></tr><tr><td>7</td><td>23</td><td>Han Mourgani.</td></tr><tr><td>8</td><td>45</td><td>Kalabaka.</td></tr></table>	h.	m.		0	0	Metzovo.	3	30	Han Malakasi.	7	23	Han Mourgani.	8	45	Kalabaka.
h.	m.																	
0	0	Metzovo.																
3	30	Han Malakasi.																
7	23	Han Mourgani.																
8	45	Kalabaka.																

## ROUTE 15

KARPENISI—KARDITZA, 43 $\frac{1}{4}$  miles

A mountain track or bridle-path. The times are those of a traveller on foot with pack-horses.

miles	hours	
0	0	<b>Karpenisi</b> , alt. 3,280 ft. Leave SE. by the Lamia carriage-road.
1 $\frac{1}{2}$		Turn off l. and ascend the slopes of Mt. <b>Velouchi</b> .
5 $\frac{1}{4}$	3 $\frac{1}{2}$	Shoulder, 1 $\frac{1}{2}$ miles due E. of the summit, from which a watershed between the Megdovas and Helladas rivers carries the path NNE.
9	5 $\frac{1}{2}$	The ridge divides; the road follows the l. branch, from which after 2 miles it descends NNE. through thick forest to—
13 $\frac{1}{4}$	7	<b>Phourna</b> , alt. 2,850 ft., pop. 250, a large and well-built village. Hence down NW. into the valley (path E. 4 hrs. to <b>Rhendina</b> ). Bridge over stream, alt. 2,560 ft. Follow its r. bank.

miles	hours	
16 $\frac{3}{4}$		<b>Klistos</b> , a scattered village. Path leaves the valley and ascends NW.
19 $\frac{3}{4}$	10 $\frac{1}{2}$	Pass, alt. 3,970 ft. A direct track descends N. very steeply, rejoining the main track, which is slightly longer, at mile 24 $\frac{1}{4}$ below, but a short detour can be made l. (NW.) to—
22 $\frac{1}{4}$	12	<b>Spinassa</b> , on a ledge half-way ( $\frac{1}{2}$ hr.) down in the gorge (1,600 ft. deep) of the river Megdovas.
24 $\frac{1}{4}$	13	Rejoin the path at <b>Sarantoporos</b> river. Alt. 2,100 ft. Ford; remains of old bridge, $\frac{1}{4}$ hr. taken to ford the river (April).
25 $\frac{3}{4}$		Alt. 3,750 ft. Thence along western slopes of <b>Mt. Itamos</b> .
28 $\frac{1}{2}$		Branch path l. and NW. to <b>Moucha</b> , 3 miles, and up the <b>Megdovas</b> valley to <b>Neochori</b> , 8 miles (not to be confounded with Neochori E. of Trikkala), and <b>Kerasia</b> , 13 $\frac{1}{2}$ miles, where it joins the track to Mouzaki and Trikkala (see Route 18 at mile 18 $\frac{1}{2}$ ).
31 $\frac{1}{2}$	16 $\frac{1}{4}$	<b>Megali Kastania</b> , alt. 2,560 ft., lying $\frac{3}{4}$ mile beyond the summit of a low pass (alt. 2,890 ft.) N. of Mt. Itamos. Thence descend NE., through chestnuts and oaks.
33 $\frac{3}{4}$		Alt. 1,279 ft.
34 $\frac{3}{4}$		<b>Katafiyi</b> . Enter the Thessalian plain.
38 $\frac{1}{4}$		Ford the <b>Karoumbalis</b> river, here flowing N.
39 $\frac{1}{4}$	20 $\frac{3}{4}$	<b>Rousou</b> , alt. 525 ft., pop. 602. The Karoumbalis is again forded and the road proceeds NNE. over the plain, which in wet weather is extremely marshy, to—
43 $\frac{1}{4}$	21 $\frac{3}{4}$	<b>Karditza</b> , alt. 590 ft., a town of 7,000 inhabitants on the Volo-Kalabaka narrow-gauge railway.

## ROUTE 16

ARTA—AGRAFA—KARPENISI,  $76\frac{3}{4}$  miles

Bridle-paths. The times are those of a traveller on foot with pack-horses.

miles	hours	
0	0	<b>Arta</b> , alt. 80 ft. Leave by N. gate and follow the carriage-road SE. After $1\frac{1}{4}$ hr. turn off l. to—
$5\frac{1}{2}$	2	<b>Komboti</b> , large village.
$6\frac{1}{2}$	$2\frac{1}{2}$	Descend SE. into valley of a fair-sized stream. Follow its r. bank up-stream for about 25 min. and then cross. Ascend through oak forests along the S. flank of a ridge running at first E., later SE. and S. Route turns S. (soon after a group of ruins).
13		Alt. 2,420 ft. Descend E. into valley (1 hr.).
15	$6\frac{1}{4}$	Cross stream at alt. 1,410 ft., and ascend E. and SE. to—
$16\frac{3}{4}$	7	<b>Patiopoulon</b> , alt. 1,740 ft., a small hamlet, chief place of the district <b>Synteknon</b> , lying in a wide valley running SSE. with maize fields and pastures. Hence the path ascends fairly steeply N., then ENE. towards Mt. Gavrovo.
19		Route turns SE. and later S.
$20\frac{3}{4}$		Alt. 3,340 ft. Road runs S.
$21\frac{3}{4}$		Alt. 3,530 ft., in a plain with no outlet.
26	$12\frac{1}{4}$	<b>Sakaretzi</b> , pop. 795. Path leads E. and N. round the shoulder of Mt. Gavrovo, on a terrace above the r. bank of the Aspropotamo river; the path is bad, and progress is slow ( $1\frac{1}{4}$ mile per hour) to—
29	$14\frac{1}{2}$	<b>Pigadia</b> . Route continues N., and $1\frac{1}{2}$ hr. later turns down r. to—
31	$16\frac{3}{4}$	<b>Vrouviana</b> bridge over Aspropotamo, alt. 950 ft. Then steeply uphill NE. towards Mt. Hagios Elias, which is passed on the l.



miles	hours	
34	18 $\frac{1}{4}$	A small plain under Mt. Hagios Elias, alt. 2,130 ft., with maize fields and huts. Thence E. to—
39	20 $\frac{1}{4}$	<b>Granitza</b> , alt. 2,850 ft., on W. slope of a valley, the other side of which is formed by the Pteri mountain-range. There is no proper path over this range.
43 $\frac{1}{2}$	22 $\frac{3}{4}$	Pass of 4,760 ft., reached in 2 $\frac{1}{2}$ hrs. from Granitza; the ridge is then followed S. for about $\frac{1}{2}$ mile and then descended E. down a very steep uniform slope to a stream, and down its l. bank to—
45 $\frac{1}{2}$	25	<b>Monastiraki</b> , alt. 2,500 ft., pop. 368. Descend thence to Agrafiotikos river.
46 $\frac{3}{4}$	26	Cross by ford (not very easy), alt. 1,443 ft. On l. bank join the path up the river.
47 $\frac{1}{4}$		Bridge over a stream.
50 $\frac{1}{4}$	28 $\frac{1}{2}$	Entrance of a narrow valley coming from NE. Follow this. Path very narrow.
51 $\frac{1}{4}$		Cross stream by bridge: water-mill.
52 $\frac{1}{4}$	30	<b>Agrafa</b> , alt. 2,900 ft., pop. 474, situated on a platform 650 ft. above valley.
Branch path N. to <b>Petrilu</b> , 12 miles, and the <b>Smigos</b> valley, 13 miles, joining Route 18 at mile 10 $\frac{3}{4}$ .		
52 $\frac{3}{4}$	30 $\frac{1}{4}$	Descend S. to stream and ascend a steep slope through pine forest; over a shoulder of the mountains and down to—
57 $\frac{3}{4}$	34 $\frac{1}{2}$	<b>Mirysi</b> , alt. 3,080 ft., pop. 244. Hence short ascent leads E.
58 $\frac{3}{4}$	35 $\frac{1}{2}$	Pass, alt. 4,400 ft., the lowest point of the <b>Agrafa</b> range. Descend SE. and S. to—
62 $\frac{3}{4}$	38	<b>Chrysou</b> , alt. 2,460 ft., pop. 512, standing high on the l. bank of a stream. Cross this and follow it down to—

miles	hours	
67 $\frac{1}{2}$	40 $\frac{1}{4}$	<b>Megdovas</b> river, alt. 1,280 ft., crossed by a ford and footbridge. Then E. up a side valley 1 mile farther down, to—
69 $\frac{3}{4}$	42	<b>Stenoma</b> , alt. 2,160 ft., pop. 245, and up the slopes of Mt. <b>Velouchi</b> to—
73	44 $\frac{1}{2}$	Chapel of <b>Hagios Athanasios</b> , alt. 4,800 ft. Shortly afterwards the road begins its descent to—
76 $\frac{3}{4}$	46	<b>Karpenisi</b> , alt. 3,280 ft. The only considerable town in the Pindus range. Carriage-road to Lamia; bridle-tracks to Karditza (see Route 15) and in other directions.

## ROUTE 17

ARTA—TRIKKALA, 65 $\frac{1}{4}$  miles

VIA MOUZAKI

Mountain track as far as Mouzaki; afterwards track across the plain. The times are those of a traveller on foot with pack-horses.

miles	hours	
0	0	<b>Arta</b> , alt. 80 ft. Leave by N. gate, following SE. (Karvassaras) road and turn off l. (NE.) after 1 $\frac{1}{2}$ mile. The road is at first close to river-bed and suitable for wheeled traffic. Monastery of Peta on hill; beyond this the valley narrows.
4 $\frac{1}{4}$	1 $\frac{1}{4}$	Leave the valley, turning r. (NE.) immediately after passing across a bridge over a stream, and traversing a very poor and barren district, intersected by innumerable footpaths.
		The road straight on up the valley leads to <b>Kato Kalendini</b> ; thence r. to Vourgareli (see Route 19 at mile 21 $\frac{1}{2}$ ), l. to Agnanta and Syraku.

miles	hours	
		The path rises to the Zygos ridge running E. (alt. 1,650 ft.), on the top of which is—
8 $\frac{3}{4}$	3	<b>Livitziko</b> , alt. 1,650 ft., pop. 123. Distant views in every direction ; NE. as far as Vourgareli.
10 $\frac{3}{4}$		Alt. 1,870 ft.
		After $\frac{3}{4}$ hr. the path bends N.
12 $\frac{3}{4}$	4 $\frac{1}{2}$	<b>Kastro</b> , ruined fortification. Path turns E. and then descends NE. through thick woods to—
15 $\frac{3}{4}$	5 $\frac{1}{2}$	<b>Skulikaria</b> stream flowing SE. to NW. (bridge, alt. 720 ft.).
16 $\frac{1}{4}$		Cross another stream, and ascend.
19 $\frac{1}{2}$	7 $\frac{1}{4}$	<b>Ano Kalendini</b> , alt. 1,540 ft.
22 $\frac{1}{2}$		Path enters a narrow and steep ravine.
23 $\frac{1}{2}$	10 $\frac{1}{2}$	At the head of the ravine (opposite <b>Ritziana</b> village) the valley forks. The path follows the E. branch, ascending its S. side.
24 $\frac{3}{4}$	12	Pass, alt. 2,950 ft., reached through oak woods, changing above alt. 2,350 ft. into pine forest. Path continues S.
26	12 $\frac{1}{2}$	<b>Katavothra</b> , scattered village, alt. 2,165 ft., pop. 221. Path turns E., crossing several water-courses, leaving to the S. the village <b>Miliana</b> , and converging with r. bank of Aspropotamo river through deep oak forests. Progress slow.
30 $\frac{1}{2}$	16 $\frac{1}{2}$	Traverse the small fertile plain of <b>Grevia</b> (maize fields) and descend $\frac{1}{2}$ hr. to—
32	17	Right bank of the <b>Aspropotamo</b> , with cultivated fields opposite. Follow the river NE. and NW.
35	19 $\frac{1}{4}$	<b>Koraka</b> bridge, alt. 1,445 ft. Follow the road across the ravine where the latter becomes impassable. The bridge (50 yards long) is narrow and steep, parapet low and ruinous, surface slippery. Path climbs out of gorge on NE. side to—
36	20 $\frac{1}{4}$	Pass of <b>Pente Adelfia</b> , alt. 2,460 ft., and thence with steep zigzags down into the gorge of the

miles	hours	
		<b>Smigos</b> river, which it crosses by a bridge, and ascends NW. to—
37	21½	Near <b>Liaskovo</b> village, alt. 2,330 ft., pop. 412.  Paths N. up <b>Aspropotamo</b> valley ; E. up <b>Smigos</b> valley to Oxya pass (see Route 18 at mile 14).
39½		The road turns NE. up the r. side of a valley through oak forests, crossing tributary valleys. The valley narrows gradually, and at its head the path leads across the stream and up to—
45	27	<b>Knissovo</b> , a scattered village, alt. 3,000–3,200 ft., pop. 196. Stands in a semicircle of high hills. The road turns N., crossing a stream and ascending steeply.
46½	28½	Pass, alt. 4,790 ft. Descend NE. through pine-woods, changing at alt. 2,950 ft. into chestnuts, and later also oaks.
48½	30½	<b>Vatzinia</b> , alt. 1,440 ft. Shortly after this the path strikes the <b>Mouzaikos</b> river, which it crosses, and follows SE. down its l. bank.
49¼		
53¼	32½	Bridge at the upper end of ravine, carrying path leading to the Nevropolis region. Route now enters ravine, the defile of Mouzaki ; an important pass connecting the mountain country with the Thessalian plain.
54¾	33	<b>Mouzaki</b> , alt. 590 ft., pop. 1,026, on the edge of the Thessalian plain ; a market-centre for the neighbouring hill-country. From Arta to Mouzaki is usually done in 4 or 5 days. By forced marches of 11 hrs. a day it can be done in 3 days, resting at Katavothra and Liaskovo.
		A path diverges r. (E.) to <b>Phanari</b> (7½ miles), alt. 850 ft., pop. 2,032, a small town standing on a hill projecting into the plain and commanding

miles	hours	
		several routes into the mountains. Good houses, shops, bazaar. Railway to Karditza and Trikkala.
		Route now traverses the plain, which is here exceptionally fertile, NE.
59	34	<b>Rhapsista.</b>
62 $\frac{1}{4}$		Route crosses Salamvria river by a bridge.
65 $\frac{1}{4}$	36	<b>Trikkala.</b>

## ROUTE 18

LIASKOVO—TRIKKALA, 34 $\frac{1}{2}$  miles

## VIA SMIGOS VALLEY

Bridle-path as far as Mouzaki ; after that a track across the plain. The times are those of a traveller on foot with pack-horses.

miles	hours	
0	0	<b>Liaskovo</b> , alt. 2,320 ft. Start SE.
3		Cross Knissovo river by a bridge.
6	2 $\frac{1}{2}$	<b>Koumbouriana</b> , large village. Proceed up the r. bank of Smigos river, by a path generally high above the river. Path turns N.
10 $\frac{3}{4}$		Branch path E. to <b>Petrilu</b> , 1 mile, and S. to <b>Agrafa</b> , 13 miles, joining Route 16 at mile 52 $\frac{1}{4}$ .
11 $\frac{1}{2}$		<b>Vlasi</b> . Ascend the r. bank of a stream NE. to the summit of—
14	7 $\frac{1}{2}$	<b>Oxya</b> pass, alt. about 5,080 ft. Thence down a water-course immediately S. of Mt. Karvela to—
18 $\frac{1}{2}$	9 $\frac{1}{2}$	<b>Kerasia.</b>
		A path r. providing the best route between Arta and Karditza, leads E. across <b>Nevropolis</b> plain, an upland plain surrounded by low hills, on the headwaters of the river Megdovas. A branch from



miles	hours	
		this path leads S. down the Megdovas valley to the Karpenisi-Karditza track (Route 15 at mile $28\frac{1}{2}$ ).
		Track goes NW. to—
$19\frac{1}{2}$		<b>Phloresei.</b>
$20\frac{1}{2}$		<b>Zeretzi.</b>
$22\frac{1}{2}$		Bridge over the <b>Mouzaki</b> (Boubolina) river.
		Through a short defile to—
24	$13\frac{1}{2}$	<b>Mouzaki</b> , alt. 590 ft. For continuation see Route 17 at mile $54\frac{3}{4}$ .
$34\frac{1}{2}$	$16\frac{1}{2}$	<b>Trikkala</b> , alt. 394 ft.

## ROUTE 19

ARTA—VITZLITA,  $34\frac{1}{2}$  miles

Probably usable by artillery as far as Platanorrhevma bridge; after this a mountain track. The times are those of a traveller on foot with pack-horses.

miles	h.	m.	
0	0	0	<b>Arta</b> , alt. 80 ft. Route starts SE. out of the town along the Karvassaras road for $1\frac{1}{4}$ miles.
$1\frac{1}{2}$			Turn N. along track up the valley of the <b>Artinos</b> river.
6	2	15	Bridge over the <b>Platanorrhevma</b> stream, alt. 295 ft. Track turns away from the Artinos river NE. to—
$9\frac{1}{2}$	3	45	<b>Han Kato Kalendini</b> , near the junction of the Vourgareli and Kalendini rivers. Alt. 361 ft. Track crosses the Vourgareli river and then runs NE. along its course to near its head.
$19\frac{1}{2}$			Track turns due N. to—
$21\frac{1}{2}$	10	0	<b>Vourgareli</b> , alt. 2,656 ft. Track continues N. and ascends steeply to—

miles	h. m.		
24 $\frac{1}{2}$			Summit of pass, 4,330 ft. Track descends steeply into a stream valley and then ascends to—
26 $\frac{1}{2}$	13	0	<b>Theodoriana</b> , alt. 3,212 ft.  Branch path NW. to <b>Melissourgi</b> , 5 miles, and <b>Pramanta</b> , 9 miles.  Route leaves the village and goes due E. and then follows the valley of the Aspropotamo, keeping N. of, and above, the river.
28			Branch path N. to <b>Greveno</b> and foot of Stavros pass (see Route 25 at mile 6 $\frac{1}{2}$ ).
31 $\frac{3}{4}$	16	0	<b>Dovroi</b> .
33 $\frac{3}{4}$			Bridge over the <b>Aspropotamo</b> .
34 $\frac{1}{2}$	17	30	<b>Vitzista</b> , alt. 2,624 ft. Hence to Kalabaka by Pyrrha, 19 hrs. (total 36 $\frac{1}{2}$ hrs.).

## ROUTE 20

ARTA—TRIKKALA, 58 miles

## VIA VITZISTA

This is an attempt to reconstruct from various data what was probably the line of an important military way along which large bodies of troops are recorded to have marched from Arta to the Thessalian plain without using the Metzovo (Zygos) pass. As it passes through a region of which the modern map is inaccurate, the distances and altitudes must only be taken as approximate. It is a mountain track from Arta until it reaches the Thessalian plain. Hardly any part of it, until this plain is reached, would be possible for wheeled traffic, though the native pack animals could make their way along it. In the plain of Thessaly it may be assumed to be of

the nature of the plain-tracks of the region, viz., passable for wheeled traffic in the summer, but impossible for such traffic in winter.

Either this route, or the variant by Veterniko, can be combined with the Stavros pass (Route 25), as an alternative to the Metzovo pass between Yanina and Trikkala.

Mountain path to Porta Pazari; afterwards a track across the plain.

The times are those of a traveller on foot with pack-horses.

miles	hours	
0	—	<b>Arta.</b> For route as far as Vitzista see Route 19.
34 $\frac{1}{2}$	0	<b>Vitzista</b> , alt. 2,624 ft. Starting W., cross ( $\frac{1}{2}$ mile) the Vathyrrehvma stream flowing NW. into the Aspropotamo, and ascend r. bank of the former ESE. to—
39	2	<b>Vathyrrehvma.</b> Shortly after leaving this place the track turns ENE. up a side valley and proceeds to—
40		<b>Gionthi.</b>
40 $\frac{3}{4}$		<b>Vardari.</b> After passing this village the road crosses what is reported to be an easy pass (3,500–4,000 ft.) and descends to—
44 $\frac{1}{4}$	5	<b>Paleokarya.</b> Hereabouts a road comes in from Veterniko (see Route 22 at mile 24 $\frac{3}{4}$ ) and the Pyrrha valley. Descend 1 mile SE. and cross the Portaikos river above its entrance into the defile of Porta. This defile, which the road now traverses, is one of the few passes between the mountain district and the Thessalian plain. It is very narrow and steep. The road follows the l. bank to the lower end, where it crosses on a bridge (below which is a Byzantine church, Panagia tes Portas, and a fortified monastery, Dousko, on the mountain above) to—
48	6 $\frac{1}{2}$	<b>Porta Pazari</b> , alt. 656 ft., pop. 634, formerly a large market for the neighbouring hill country. Its place

miles	hours	
		is now taken by Mouzaki at the mouth of a similar defile 5 miles to the SE.
		The road now leads down the r. bank of the Portaikos river, here wide and stony, and enters the Thessalian plain.
53 $\frac{1}{4}$		<b>Poliana.</b>
55 $\frac{1}{2}$		Bridge over <b>Salamvria</b> river.
58 $\frac{1}{2}$	10	<b>Trikkala</b> , alt. 390 ft.

## ROUTE 21

## LIASKOVO—VITZISTA, 14 miles

A bridle-path. The times are those of a traveller on foot with pack-horses.

miles	hours	
0	0	<b>Liaskovo</b> , alt. 2,320 ft. Path starts N. up the l. bank of the Aspropotamo, crossing with steep gradients a series of ravines running W.; after about 2 hrs. descends through forest to small plain and village.
3 $\frac{1}{4}$	2 $\frac{1}{2}$	<b>Molentziko</b> , alt. 1,935 ft., pop. 30. Ascend NW. through thick oakwoods.
5 $\frac{3}{4}$	4	<b>Martinisko</b> , alt. 2,985 ft., pop. 430.
7	4 $\frac{1}{2}$	Pass, alt. 3,840 ft. Proceed N. across a ravine to—
7 $\frac{1}{2}$	4 $\frac{3}{4}$	Saddle, alt. 3,870 ft. Descend 1,300 ft. into ravine to—
8 $\frac{1}{2}$	6	<b>Valkani</b> , alt. 2,590 ft., pop. 171. Descend W. and cross a river, whose r. bank the path ascends, recrossing the river just below Kornesi.
10 $\frac{3}{4}$	7 $\frac{1}{4}$	<b>Kornesi</b> , alt. 2,850 ft., pop. 346. NW. from here path ascends a steep ridge.
12	8 $\frac{3}{4}$	Summit, alt. 4,200 ft. Descend NNW.
14	9 $\frac{3}{4}$	<b>Vitzista</b> , alt. 2,624 ft., pop. 483; on a terrace 490 ft. above the Aspropotamo.

miles	hours	
		Paths: (i) SW. on r. bank of Aspropotamo (cross by bridge below Vitsista) to Vourgareli (see Route 19, miles $34\frac{1}{2}$ — $21\frac{1}{2}$ ); (ii) ESE. over easy pass to Porta Pazari and Trikkala (see Route 20).

## ROUTE 22

## VITZISTA—VLACHO KASTANIA, 34 miles

A bridle-path. The times are those of a traveller on foot with pack-horses.

miles	hours	
0	0	<b>Vitzista</b> , alt. 2,624 ft.
$\frac{3}{4}$	$\frac{1}{4}$	Cross tributary of the Aspropotamo flowing NW., and continue to follow l. bank of the Aspropotamo.
$4\frac{1}{2}$	$2\frac{3}{4}$	Road crosses the <b>Pyrha</b> river and ascends to—
5	$3\frac{1}{4}$	<b>Kamnai</b> .
		Path hence NW. to Dragovisti ( $6\frac{3}{4}$ miles), giving an alternative route to VlachO Kastania (see Route 23).
$7\frac{3}{4}$	$5\frac{1}{4}$	Route ascends the r. bank of <b>Pyrha</b> river.
$10\frac{3}{4}$	$6\frac{3}{4}$	<b>Pyrha</b> (alt. 3,250 ft., pop. 74; good inn).
		<b>Veterniko</b> , alt. 3,700 ft., pop. 207, a Vlach village.
		Branch path to <b>Porta Pazari</b> (see Route 20 at mile 14) over a low pass, diverges SE. up a valley.
$13\frac{3}{4}$	8	<b>Pertuli</b> , alt. 3,870 ft., pop. 38. Gentle ascent.
16	$9\frac{1}{4}$	Summit of pass, 3,970 ft., watershed between Aspropotamo and Salamvria systems.



miles	hours	
18 $\frac{3}{4}$		Hence a path leads down l. side of a steeply eroded valley N. for about 5 hrs. to join the Metzovo pass road (Route 14B at mile 52) about 2 hrs. above Kalabaka.
		Route diverges l. and crosses a shoulder of Mt. Kirvoli to—
20 $\frac{3}{4}$	11 $\frac{1}{4}$	<b>Aivan</b> (or Giuvanu), alt. 2,790 ft., pop. 185. Hence N. down l. bank of the stream to its confluence with the Paleochori stream, whose r. bank is then followed up (W.) to—
24 $\frac{3}{4}$	12 $\frac{3}{4}$	<b>Paleochori</b> , alt. 3,280 ft., pop. 161. Cross valley N. and ascend steeply.
26 $\frac{1}{4}$	14 $\frac{1}{2}$	Pass, alt. 6,130 ft., below the summit of Mt. Baba.
28 $\frac{1}{2}$	15 $\frac{3}{4}$	Saddle, alt. 5,480 ft., between valley of Klinovo and one which leads the road NW. and N. into the Kastania valley, which is followed up.
32 $\frac{1}{2}$	16 $\frac{3}{4}$	<b>Vendista</b> , pop. 591.
34	17 $\frac{1}{4}$	<b>Vlacho Kastania</b> , alt. 3,840 ft., pop. 930.

## ROUTE 23

## VITZISTA—VLACHO KASTANIA, 25 miles

A mountain track or bridle-path, affording a shorter alternative to latter part of Route 22. The times are those of a traveller on foot with pack-horses.

miles	hours	
0	0	<b>Vitzista</b> , alt. 2,624 ft. For route to Kamnai see Route 22, miles 0–5.
5	3 $\frac{1}{4}$	<b>Kamnai</b> , lying on the opposite bank of the Pyrrha stream. Continue to ascend the Aspropotamo valley NW.
5	9 $\frac{1}{4}$	Track from Pramanta and Gardiki joins here across bridge on l. (see Route 25 at mile 13 $\frac{1}{2}$ ).

miles	hours	
		Route turns NE.
10 $\frac{3}{4}$	6	<b>Dragovisti</b> , alt. 3,770 ft., a large Vlach village, pop. 700 in summer.
		A path diverges hence NW. to Chaliki, with branch over Toskia pass to Kalarrhytai (Route 52).
		Route proceeds NE. high above a tributary valley to—
15 $\frac{1}{2}$	8	<b>Krania</b> , alt. 3,870 ft., pop. 4,000, a large Vlach village, only inhabited, like many high villages, in summer. Thence across a deep valley (running up SE.) to—
17	9	<b>Doliana</b> , pop. 50. Proceed up the l. bank of a stream in a gently-ascending valley N. and NE. through woods.
23 $\frac{1}{2}$	11	Pass, alt. 4,800 ft., whence a steep descent leads to <b>Vendista</b> . Here the path turns l. (NE.) to
25	11 $\frac{1}{2}$	<b>Vlacho Kastania</b> , alt. 3,840 ft.

## ROUTE 24

KALARRHYTAI—ARTA, 42 miles

This route (a good bridle-path) was regarded as an important military route in Greek operations against Yanina in 1897 and 1912. It was apparently practicable for artillery.

The times are those of a traveller on foot with pack-horses.

miles	hours	
0	0	<b>Kalarrhytai</b> , alt. 3,870 ft. $\frac{3}{4}$ hr. SE. down to stream, and across by bridge; then round a steep ridge.
2 $\frac{1}{4}$	1	<b>Matzouki</b> stream. Alt. 2,560 ft. Bridge.

miles	hours	
		Branch track 40 min. E. to <b>Matzouki</b> , alt. 3,400 ft., pop. 291, in a small cultivated plain; path continuing E. over Kakarditza range to <b>Gardiki</b> .
		Ascend steeply, working W. and SW. round the shoulder of the Stavros range, high above Kalarhytai stream in its gorge, and descend S. to—
5 $\frac{3}{4}$	3	Bridge, alt. 1,670 ft., over a stream flowing NW. from Melissourgi. Thence up, following W. side of a ravine, at first through woods, to—
8 $\frac{3}{4}$	4 $\frac{1}{2}$	<b>Pramanta</b> , alt. 2,790 ft., pop. 1,842 (see Route 25).
10 $\frac{1}{2}$	5	<b>Kusovitza</b> . Thence cross several ravines to—
12 $\frac{3}{4}$	6 $\frac{1}{2}$	<b>Agnanta</b> , the largest town of this neighbourhood. Ancient fort (Kastri) about 1 mile SE. of town.
14 $\frac{1}{4}$	7 $\frac{1}{2}$	<b>Schoretzana</b> , alt. 2,750 ft., pop. 782, on a height commanding the road $\frac{1}{2}$ hr. farther on. All this section of the road runs along the flank of the Tzumerka range, which is very steep on its W. face and not crossed by any passes; Pramanta and Vourgareli lie at its N. and S. ends. The road crosses numerous deep watercourses.
15	8	A path diverges l. under the heights of Kataphidi to <b>Vourgareli</b> , 4 hrs.
17 $\frac{1}{4}$	8 $\frac{1}{2}$	<b>Seres</b> , pop. 180.
18	9	<b>Lipiana</b> , pop. 385. $\frac{1}{2}$ hr. farther the road turns r. and descends a ridge W. and SW. towards the <b>Artinos</b> river, which, after crossing two bridges over small streams, it reaches at—
23 $\frac{1}{4}$	11 $\frac{1}{4}$	<b>Kryoneri</b> , a scattered village, alt. 550 ft. Route then crosses two more small streams by bridges.
26	12 $\frac{1}{2}$	<b>Phteri</b> . Route leaves the river, and ascends.
28		<b>Lykuresi</b> .
30		Alt. 1,770 ft. Descend.

miles	hours	
32½	14¼	<b>Han Kato Kalendini</b> , 360 ft., near junction of Vourgareli and Kalendini rivers (bridges over both). Thence SW. over low hills.
36	15¾	Bridge over <b>Platanorrhevma</b> stream, alt. 295 ft., and down l. bank of the Artinos.
40½		Bridge over small stream.
42	18	<b>Arta</b> , alt. 80 ft.

## ROUTE 25

PRAMANTA—GARDIKI—DRAGOVISTI, 14½ miles

## VIA STAVROS PASS

A mountain track. The times are those of a traveller on foot with pack-horses.

miles	hours	
0	0	<b>Pramanta</b> , alt. 2,790 ft. From here (on the Kalarrhytai—Arta track, Route 24 at mile 8¾) the path leads E. and then SE. along the l. side of the Melissourgi valley, crossing many ravines.
3½	2	<b>Melissourgi</b> , alt. 2,950 ft. Cross the valley E.
		Branch path SE. to <b>Theodoriana</b> and <b>Vourgareli</b> over a pass, alt. 5,900 ft.
		Route ascends in general NE. direction, first up a deep ravine, then through pine forests, ending at alt. about 5,120 ft., and then over sloping pastures where snowfields remain as late as the middle of June.
5½	4	<b>Stavros</b> pass, alt. 6,825 ft., a hardly noticeable depression in the level ridge.
6½		At the foot of the pass a path diverges r. (southwards) up a valley between Mt. Avti and the main

# 150      ROADS AND TRACKS—ROUTES 25, 26, 27

miles	hours	
		Stavros range, over a pass (5,938 ft.) to <b>Greveno</b> (2½ hrs.), <b>Theodoriana</b> (4 hrs.), and over a lower pass (4,330 ft.) to <b>Vourgareli</b> (7 hrs. : see Route 19 at mile 28).
		Route now runs down the l. side of the Gardiki valley. It crosses the <b>Moutzara</b> stream (3 hrs. from summit) high above the village of that name, and descends to—
11¾	7½	<b>Gardiki</b> , alt. 3,575 ft., a large Vlach village, with perhaps 2,500 inhabitants in summer. Thence descend NE. to—
13½	8	Bridge over <b>Aspropotamo</b> river, joining Route 23 (at mile 9¼), and ascending valley.
14½	9	<b>Dragovisti</b> , alt. 3,770 ft.

## ROUTE 26

ARTA—SALACHORA, 7½ miles

Marked as carriage road on the map.

miles	
0	<b>Arta</b> , alt. 80 ft. Road across the plain.
7½	<b>Salachora</b> , the port on Gulf of Arta, a small place in an unhealthy situation (see Route 28 under mile 35).

## ROUTE 27

YANINA—ARTA, 38 miles

VIA PENTEPIGADIA

Route alternative to the carriage road (Route 28). One report speaks of this as a good cart-road, but it is probably



no more than a good horse-track. By this route it is reckoned 12 hours from Yanina to Arta, but with good horses it may be done in much less time. The traveller Leake did it in a little over 9 hours.

miles	h.	m.	
0	0	0	<b>Yanina</b> , alt. 1,587 ft. Follow first the line of Route 28.
9 $\frac{1}{4}$			Here the route branches E. from the line of Route 28. Alt. 2,120 ft.
13	4	0	Route enters a mountainous region.
			<b>Pestia</b> village on l. Fine spring by the track.
19 $\frac{1}{4}$	6	0	<b>Pentepigadia</b> . Defile defended by Turks in 1912.
22 $\frac{3}{4}$	8	0	<b>Han Karvassaras</b> , in next valley.
23 $\frac{3}{4}$	8	28	<b>Meliana</b> , $\frac{1}{2}$ m. on E. of road on shoulder of Sideri range.
25 $\frac{1}{2}$	9	0	Summit of pass. Descend to—
28 $\frac{1}{2}$	10	8	<b>Kometzades</b> , $\frac{1}{4}$ m. E. of road.
			Road then enters a plain, with the foot and steep rocky slope of Mt. Kilberini on l., and a marsh on r., the passage being very narrow. This narrow passage and the pass to the N. of it are regarded as strong defensive positions. The Turks tried to defend it in 1912.
31 $\frac{1}{2}$			Join Route 28 (at mile 39).
38	11	48	<b>Arta</b> .

Usual reckoning by time on the reverse route :

	h.	m.	
	0	0	Arta.
	3	0	Kometzades.
	4	30	Point below Meliana.
	6	0	Pentepigadia.
	9	0	Junction with Route 28.
	12	0	Yanina.

## ROUTE 28

YANINA—ARTA, 45 miles

## VIA PHILIPPIADA

This road can certainly be used by carriages, and is reported (1915) to be an excellent metalled road as far as Philippiada. From Philippiada to Arta the road is a cart-track.

An authority of 1899, in describing the journey from Yanina to Prevesa, says: 'From Yanina a grand road (made by Ali Pasha) runs to Arta and Prevesa. Descend skirting the Suliote hills, round precipices, under great hanging sloping masses, moraines, caverns, natural tunnels, over several passes down to and along the Vyros river.'

The times given are those of a traveller who is obviously going more slowly than usual.

miles	h.	m.	
0	0	0	<b>Yanina</b> , alt. 1,587 ft.
$\frac{1}{2}$			Road from Metzovo comes in here (see Route 50 at mile 174).
$1\frac{1}{2}$			Church, E. of road.
$2\frac{1}{2}$			Cross a low ridge separating Yanina lake from the plain.
$4\frac{1}{4}$			<b>Rhapsista</b> , $1\frac{1}{4}$ miles W.
$5\frac{1}{2}$	2	30	<b>Han Betzani</b> , alt. 1,673 ft.; village, $1\frac{1}{4}$ miles E. In 1912 the hill of Betzani, E. of the <i>han</i> , was fortified by very strong works which had been constructed in previous years for the defence of Yanina. They proved very difficult to capture. They seem to have been of a permanent character. £1,000,000 is said to have been spent on them.
			Track comes in l. from Betzani and Koutzoulío (see Route 51 at mile 6).
$9\frac{1}{4}$	3	45	Road enters narrow valley. Alt. 2,120 ft.

miles	h.	m.	
			Church of Hagia Nikola, W. of road.
			Alternative route to Arta branches off here (see Route 27).
9 $\frac{3}{4}$			Military post. Road goes through a small pass, alt. 2,132 ft., and then descends into valley, 1,148 ft. There are two paths on either side of the main road, by which the pass could be turned.
11			<b>Theriakisi</b> , $\frac{3}{4}$ mile W.
14 $\frac{1}{4}$	5	10	<b>Han Delmiraga</b> , alt. 1,181 ft. Cross a stream by bridge.
			Road is descending l. bank of Vyros river.
16			<b>Melichovo</b> , $\frac{3}{4}$ mile r.
16 $\frac{1}{2}$	5	50	<b>Han Vyros</b> . Valley narrow though not a ravine.
			On the other side of the river, high up on W. side of valley, is the great Vyros spring, rising in a small lake from which the water falls in a cataract down to the main stream, turning several mills. It more than doubles the volume of the Vyros.
17 $\frac{1}{2}$			Remains of ancient fortress on cliffs to r.
	6	40	<b>Steno</b> gorge, or ravine of Mouskiotitza, begins. Cliffs 820 ft. high.
19 $\frac{1}{2}$			Ravine bends towards E. Here is a bridge leading the road to the W. bank of the Vyros.
23	7	50	<b>Han Koukouleaes</b> , alt. 590 ft. Valley marshy at bottom. <b>Panagia</b> , W.
24			<b>Kritzina</b> , $\frac{3}{4}$ mile E.
26			<b>Hagios Georgios</b> monastery.
27	8	0	<b>Han Kerassovo</b> . Below this another ravine.
28			Large spring with two ancient brick aqueducts.
29 $\frac{1}{4}$			<b>Karaul Vafi</b> (military post).
30 $\frac{1}{4}$			Large spring with two ancient brick aqueducts.
30 $\frac{1}{2}$			<b>Hagios Georgios</b> church, $\frac{1}{4}$ mile W.

miles	h. m.		
31 $\frac{3}{4}$			<b>Hagios Iani</b> (Ioanni) monastery, alt. 984 ft., $\frac{3}{4}$ mile W.
32			Bridge leading to <i>han</i> and village of <b>Pandanassa</b> , $\frac{3}{4}$ mile E.
35	11	15	<b>Philippiada</b> (Filipiades), alt. 33 ft. A small town of over 1,000 inhabitants, with considerable market and local trade.
			Here road to Prevesa continues S. and then W.: see Route 29. From it a road (probably a carriage road) branches S. across the plain to Salachora, the port of Arta (see Route 29 at mile 38 $\frac{1}{4}$ and Route 26 at mile 7 $\frac{1}{2}$ ).
			Valley now opens out.
			Road has hitherto been a good metalled road. It now becomes a cart-track.
			Hitherto the route has run S. from Yanina: it now turns E. over bridge, and hugs edge of plain to avoid marshy ground.
37	11	45	<b>Strevina.</b> Large spring.
			Road now turns SSE. and runs with the steep-sided Kilberini ridge on its E. side and a marsh on its W. Passage between ridge and marsh narrow, and noted by military authorities as very defensible.
39			Route 27 (at mile 31 $\frac{1}{2}$ ) joins the present route.
40			<b>Han Chanopoulon.</b>
			Large springs are passed about an hour before Arta.
45	13	15	<b>Arta.</b> Road reaches town by a bridge. River is 200 yards wide, deep, winding, and rapid.

## ROUTE 29

YANINA—PREVESA,  $60\frac{3}{4}$  miles

This is reported (1915) to be a very good metalled road. An excellent transport service by motor lorries and mules was maintained on it by the Greek army in 1912. The journey by carriage is usually made in 2 days with a halt at Philippia, but it can be accomplished in one day if special arrangements have been made for relays at Philippia.

miles

- |                  |   |
|------------------|---|
| 0                | <b>Yanina</b> , alt. 1,587 ft. For road as far as Philippia see Route 28.   |
| 35               | <b>Philippiada</b> , alt. 33 ft. Road continues S. along W. bank of Vyros river. This river, from here to its mouth, was used by the Greek army in 1912 for transport by means of barges. |
| 38 $\frac{1}{2}$ | Road turns W., a branch continuing S. to Salachora.   |
| 41               | Ruins of <b>Rogi</b> , S.   |
| 42 $\frac{3}{4}$ | Bridge over stream at <b>Kanzia</b> . Road continues SW. to—  |
| 44 $\frac{1}{2}$ | <b>Louros Mikro</b> , skirting a marsh. Numerous springs hereabouts.  |
|                  | Branch track to Paramythia (see Route 30).  |
| 45               | Cross <b>Louros</b> river by a bridge.  |
| 48               | <b>Lisari</b> , W. of road.   |
| 49 $\frac{1}{2}$ | Church, $\frac{1}{4}$ mile W.   |
| 53 $\frac{1}{4}$ | Church to E. <b>Michalitz</b> , 1 mile W. among hills. These hills command the road from Prevesa. Turks attempted to defend this line in 1912.  |
| 54 $\frac{1}{2}$ | Road turns W.   |
| 55 $\frac{1}{4}$ | Road turns S.   |
| 60 $\frac{3}{4}$ | <b>Prevesa</b> .  |



## ROUTE 30

LOUROS MIKRO—PARAMYTHIA,  $31\frac{1}{2}$  miles

Connects route Yanina-Prevesa (see Route 29 at mile  $44\frac{1}{2}$ ) to route Sayada Bay-Yanina (see Route 36 A at mile 25). Horse-track over mountainous region.

miles.

0	<b>Louros Mikro.</b> Telegraph to Prevesa. Road runs up valley of Louros river.
11	Reach the valley of the <b>Lakiotikos</b> river (Acheron) at point where it is flowing SW. Alt. about 650 ft. Road turns W. and crosses a small tributary. River turns NW. and enters the defile of <b>Souli</b> (Kakosouli).
$13\frac{3}{4}$	Road turns NNW. at alt. 1,500 ft. to—
$14\frac{3}{4}$	<b>Bornik</b> , alt. about 1,700 ft. Descend N. slope of mountain towards defile of Souli.
$16\frac{3}{4}$	Route turns W. along defile and crosses the river to—
$18\frac{1}{2}$	<b>Glyky</b> , alt. about 230 ft., where it joins Route 31 (at mile $29\frac{1}{4}$ ). Follow this route N. to—
$31\frac{1}{2}$	<b>Paramythia</b> , alt. 780 ft. About 11 hrs. from Louros Mikro.

## ROUTE 31

PREVESA—PARAMYTHIA,  $42\frac{1}{4}$  miles

This is a track suitable for pack animals. Times given are those of the walking pace of a horse.

miles	h.	m.	
0	0	0	<b>Prevesa.</b> Follow the main road to Yanina to—
$1\frac{1}{4}$			Point where track starts away to the l.
$3\frac{1}{4}$	1	10	<b>Mytika</b> , 1 mile W. of road.

miles	h.	m.	
5 $\frac{1}{4}$			Road from this point runs N. close to the sea-shore, leaving first the hill of <b>Michalitzi</b> , and later the village of <b>Kanali</b> , to the E.
11 $\frac{1}{4}$	3	13	Cross the river <b>Kamarina</b> . A bridge is marked on the map.
12	3	33	<b>Kastrosykia</b> village, close to the sea. Anchorage, sheltered by Ittisa Reef to NW., where small coasting vessels call. Track now leaves the coast and ascends a ridge.
15			Summit of ridge, alt. about 980 ft.
			Track begins descent to—
15 $\frac{1}{4}$	4	28	<b>Rhiniassa</b> village, alt. about 900 ft.
15 $\frac{3}{4}$			Alt. about 250 ft., in a valley.
			Track ascends the comb of a ridge along the side of a steep ravine.
17			Alt. 1,040 ft.
18	5	38	<b>Topolia</b> village, alt. about 1,050 ft.
20			Summit of a ridge, alt. about 1,440 ft.
			Track descends a stream valley.
22 $\frac{1}{2}$	7	8	Edge of the plain of <b>Phanari</b> , alt. about 250 ft.
23 $\frac{1}{4}$			Track crosses affluent of the Phanariotikos river.
23 $\frac{1}{2}$	7	43	<b>Kanalaki</b> village.
			Here a track from Porto Phanari, 7 miles, comes in from the W.
			Track now runs along E. edge of the plain.
26 $\frac{1}{4}$	8	43	<b>Moutiakati</b> , village on hill-side to E. of track.
29			Cross the <b>Phanariotikos</b> river.
29 $\frac{1}{4}$	10	3	<b>Glyky</b> .
			Here Route 32, Yanina-Souli-Parga, crosses the present route (see Route 32 at mile 36 $\frac{1}{4}$ ), and track from Louros Mikro comes in from SE. (see Route 30 at mile 18 $\frac{1}{2}$ ).
			Track follows the foot of Mt. Zavrocho.
31 $\frac{1}{4}$	10	38	<b>Choika</b> , village.

miles	h.	m.
-------	----	----

Here the route divides into two : (A) a lower route along the plain, certainly the easier of the two routes ; (B) an upper one along the mountain side, which would probably be preferable in the winter season, when the mud in the plain might be very deep.

#### ROUTE (A)

33 $\frac{1}{4}$	11	13	<b>Gardiki</b> village on the mountain to the E.
36 $\frac{3}{4}$	12	3	<b>Dragomi</b> village on the mountain to the E.
43 $\frac{1}{4}$	13	38	<b>Paramythia</b> .

#### ROUTE (B)

33 $\frac{1}{4}$	<b>Gardiki</b> village, alt. about 1,150 ft.
36 $\frac{1}{4}$	<b>Dragomi</b> village, alt. about 980 ft.
38 $\frac{1}{4}$	<b>Veliani</b> village, alt. about 980 ft.
42 $\frac{1}{4}$	<b>Paramythia</b> , alt. 780 ft.

## ROUTE 32

YANINA—PARGA, 49 $\frac{1}{4}$  miles

### VIA SOULI

The best route from Yanina to Parga is via Paramythia (see Routes 36, 33). The present route is obviously very difficult. Some of the details are taken from the map ; but it is probable that the map of this peculiarly wild region is very imperfect.

Times are those of a traveller on horseback.

miles	h.	m.
-------	----	----

0			<b>Yanina</b> , alt. 1,587 ft.
			Proceed SSW. over plain at lower end of lake.
3 $\frac{1}{2}$			<b>Rhapsista</b> , alt. 1,574 ft.
			Route turns WSW. up a stream valley to—
6 $\frac{1}{2}$	2	30	Chapel of <b>Hagia Nikola</b> , alt. 3,150 ft.

miles	h.	m.	
			Rapid descent through ravine into the broad valley of Tzarakovitza, turning eventually SE.
9 $\frac{1}{4}$	3	0	<b>Dodona</b> , alt. about 2,100 ft.
			Route goes SE. along NE. foot of Mt. Olytzika.
13 $\frac{3}{4}$			<b>Theriakisi</b> , about $\frac{1}{2}$ mile E. of the track.
			Route runs due S. to
15 $\frac{1}{4}$			<b>Kopani</b> , alt. about 1,312 ft.
			Route turns SW. along S. slope of Mt. Olytzika.
16 $\frac{1}{2}$	5	20	<b>Variades</b> , alt. about 1,640 ft.
			Path at this part difficult and even dangerous.
18			<b>Toskesi</b> . (Maps do not agree as to whether this village is actually on the track.) Route turns SSW.
20 $\frac{3}{4}$			<b>Yorgani</b> , alt. about 980 ft.
22	8	35	<b>Dervitziana</b> , alt. about 1,300 ft.
			Route turns SW.
25 $\frac{3}{4}$	10	5	Route crosses the <b>Lakiotikos</b> (called Phanariotikos nearer its mouth) river, alt. about 500 ft.
			Route turns NNW.
27			<b>Romano</b> (Romanati), alt. about 980 ft.
			Track turns SW. up the mountain by a series of zigzags, passing a spring.
29 $\frac{1}{2}$	12	3	Summit of ridge, alt. 3,280 ft.
			Track descends mountain by steep series of zigzags.
31 $\frac{1}{4}$	13	14	<b>Souli</b> (Kakosouli), alt. about 900 ft.
			Track descends to the gorge of the Phanariotikos (Acheron). Travellers must dismount. Path a mere ledge and dangerous. It then turns W. along the N. side of the gorge.
36 $\frac{1}{4}$	18	44	<b>Glyky</b> , alt. about 650 ft. (see Routes 30 at mile 18 $\frac{1}{2}$ , 31 at mile 29 $\frac{1}{4}$ ).
			Road crosses the plain.
38 $\frac{1}{2}$			Near the W. edge of the plain, cross river
			<b>Vouvos</b> by a bridge, alt. about 150 ft.
40 $\frac{1}{2}$			Small lake to N. of track.

miles	h.	m.	
42			<b>Morfati</b> , alt. about 950 ft.
44			Road passes through a valley with several small lakes.
			Road turns S. and climbs the mountain behind Parga.
47			Summit of ridge about 1,140 ft.
			Road descends by a series of zigzags.
49 $\frac{1}{4}$	23	44	<b>Parga.</b>
			Another (estimated) time-table over this route is :
			h.    m.
			0    0    Yanina.
			3    0    Dodona.
			13   0    Romano.
			18   30   Souli.
			28   30   Parga.

## ROUTE 33

PARGA—PARAMYTHIA, 19 miles

A horse-track, which joins Route 36 (A) at mile 25.

miles	
0	<b>Parga.</b>
7 $\frac{1}{2}$	<b>Margariti.</b>
19	<b>Paramythia.</b>



## ROUTE 34

## SANTI QUARANTA—SAYADA BAY—PARGA

Horse-path. Times given are those of a slow traveller.

miles	h.	m.	
0			<b>Santi Quaranta.</b> Follow route 37 for $2\frac{1}{2}$ miles.
$2\frac{1}{2}$			Turn S. on far side of coast hills, alt. about 450 ft.
$3\frac{3}{4}$	1	30	<b>Tzouka</b> , alt. about 450 ft. Road strikes E. across marsh by series of bridges to—
$6\frac{3}{4}$	2	30	<b>Karalibey</b> , on a hill, 262 ft. Road goes S., ascending towards a col.
$8\frac{3}{4}$	3	15	<b>Kenouri.</b> Ascend through woods to top of the col, 590 ft. Descend to the plain.
$14\frac{3}{4}$	6	15	<b>Mourzi</b> , alt. 229 ft.
$16\frac{3}{4}$	7	0	Cross a river and pass village of <b>Tzifiki</b> at foot of isolated hill.

Branch track SW. 3 miles over the coastal hills to Cape **Pagania**.

**Pagania**, W. of the cape, is a little harbour terminating in a land-locked creek. The inner portion has 3–5 fathoms of water, and  $1-1\frac{1}{2}$  in the narrowest part at the head. There is no fresh water and no village. A track is said to run N. over hills to the plain of the Katito river.

**Hilda Bay**, E. of Cape **Pagania**, is a semi-circular bay open to the S., containing two islets and having a depth of 14–17 fathoms, immediately E. of **Pagania**. Occasionally visited by small vessels.

$18\frac{3}{4}$	Cross <b>Katito</b> river. Over ridge to—
$21\frac{1}{2}$	<i>Skala</i> (landing-place) of <b>Sayada Bay</b> .

miles	h.	m.
		<p>Sayada Bay is semicircular, 2 miles wide, and open westward. The anchorage is on the northern side (village, about 30 inhabitants, <i>skala</i> or landing-place with custom-house, 1 mile W. of which is a spring of good water), 4–12 fathoms. The SE. side of the bay is shallow and the shore composed of salt marshes, the delta of the Kalamas river.</p> <p>From here there is a horse-track, concerning which no detailed information is available, <i>via</i> <b>Gomenitza</b> (2½ hrs.) and <b>Margariti</b> (6 hrs.) to <b>Parga</b> (9 hrs.).</p>

## ROUTE 35

### GOMENITZA—PARAMYTHIA, 13 miles

A mere track, for which the only available description is not very satisfactory, and should be received with caution. It joins Route 36 at mile 25.

miles	
0	<p><b>Gomenitza</b>, S. of Kalamas river. A fine sandy bay, 2½ by 1¼ miles in extent, with a depth of 7 or 8 fathoms. The N. side of the entrance is formed by a long sandy spit (Drepano Point) which continues across the mouth in the form of a bar. The deepest water is in the SE. part; anchorage off the custom-house (village of Grava), 9–14 fathoms. Small quantities of fresh water can be got from a well. <b>Grava</b>, Moslem village, near the shore. Road goes up narrow valley SE.</p>
3	<p><b>Grikochori</b>.</p> <p>Branch track S. to <b>Plataria</b>, 2½ miles, and <b>Mourzo</b>, 6 miles.</p> <p><b>Plataria Bay</b> is open to the westward and has deep</p>

miles

water, but is seldom used as an anchorage. Path to Margariti, 11 miles.

**Port Mourzo** lies behind Sivota Island, with an entrance facing NW. There are 20 fathoms at the entrance, diminishing rapidly within. This was a port visited by Turkish war-vessels, and a dépôt of coal was kept in the channel between Hagios Nikolaos Island and the mainland, SW. of Mourzo. Water and provisions can be obtained. Path to Parga, 13 miles, passing **Arpitzá**, 4 miles, and **Arilla**, 5 miles, two small bays with beaches, both exposed to the W.

The course of the route from this point for some distance is not shown either in the information or on the map.

9 $\frac{1}{4}$   
13

**Nicolitzi** to l. of track. Steep and rugged ravine.  
**Paramythia**.

## ROUTE 36

### SAYADA BAY—YANINA

From Philiatæes (mile 9 $\frac{1}{2}$ ) there are alternative routes.

#### ROUTE (A)

A horse-path, nominally a carriage road after passing Philiatæes. Paved near Yanina with round stones. Road is very hilly, reported in 1902 to be very bad. No narrow gorges on it. The times given are those of a slow traveller.

miles	h.	m.
0	0	0
5 $\frac{1}{4}$		

**Sayada Bay.** Track proceeds inland ESE. across plain; ascends a spur on the summit of which is—

**Smerta**, alt. 557 ft.

miles	h.	m.	
6			Descend to a bridge over a N. tributary of the Kalamas, alt. about 80 ft. Continue over undulating ground to—
9½	2	0	<b>Philataes</b> , alt. 754 ft., pop. about 2,000. Albanian community. Large trade in cattle. Tolerable <i>han</i> . Alternative route to Yanina starts from here; see (B) below.
10¾			Cross <b>Philotikos</b> or Kremnitza river by bridge of 3 arches. Alt. 131 ft.
11¼			<b>Kalvaki</b> , alt. 459 ft.
	3	15	Enter gorge of the Kalamas river (1¾ miles long): cross plain at its head SE.; river 30 yds. wide and seems very deep. Gentle current.
	3	45	Emerge from gorge into plain cultivated with maize.
18½	5	30	Cross <b>Kalamas</b> river, alt. 66 ft., by ferry to <b>Minina</b> . Bridge broken.
			Then cross two ridges (alt. of each 787 feet), to the broad Vyros valley, alt. 557 ft., and to—
25	9	30¹	<b>Paramythia</b> , alt. 780 ft., at the foot of Kurila ridge. Pop. 3,000. A miserable town. Thickly populated district to S. Road descends steeply in narrow curves.
	11	0	Road crosses stream and climbs ridge NE. Very steep and stony path, known as 'Kaki Skala', on S. side of deep ravine. Large spring at 1,935 ft.
27			Top of pass, 2,132 ft. Village of <b>Leftherochori</b> on r. Mountains each side, 4,600–4,900 ft.
			Descend valley of the <b>Tiria</b> E. and NE., crossing various tributaries by bridges.
31½	13	0	Cross a stream.
33¾	14	0	<b>Han Zaravoutzi</b> , alt. 1,115 ft.

¹ Another traveller gives distance from Kalamas river to Paramythia as 2½ hours.

miles	h.	m.	
35 $\frac{1}{4}$			Cross main stream by bridge, alt. 1,017 ft.
37			Turn NE. up a tributary.
38 $\frac{1}{2}$	16	30	Summit of pass, alt. 1,856 ft. Descend valley NE. and E.
40 $\frac{1}{4}$	17	0	<b>Han Jamaliga.</b> Descend into the <b>Malitza</b> valley, and ascend.
44 $\frac{1}{2}$	19	0	Pass, 3,149 ft.
45	19	30	<b>Kosmara</b> , alt. 2,296 ft.
50	21	15	<b>Yanina</b> , alt. 1,587 ft.

## ROUTE (B)

Road reported in 1902 to be very bad. Paved near Yanina with round stones. Passes over high country, bare and rough.

miles	time from Sayada		
	h.	m.	
0	0	0	<b>Sayada Bay.</b> Route as (A), above, as far as—
9 $\frac{1}{2}$	2	0	<b>Philataes</b> , alt. 754 ft.
15 $\frac{3}{4}$	5	30	Road goes up ENE. towards <b>Keramnitza</b> by wild mountain-path overhanging river, but passes 1 mile S. of the village.
18 $\frac{1}{4}$	7	6	30 <b>Han Koutzi</b> near Raveni.
20			Cross <b>Longovitza</b> river by bridge of Lykos.
21			<b>Leftokarya.</b> Road runs over ridge and then close along N. bank of <b>Kalamas</b> river to—
24 $\frac{1}{2}$	10	0	<b>Tzerkovista.</b> Route runs apparently NE. along N. bank of <b>Kalamas</b> river to—
27 $\frac{1}{2}$			Crossing of the river. Then ESE.
30 $\frac{1}{4}$			<b>Veltzista.</b>
36			<b>Zelova.</b>
39 $\frac{1}{4}$	16	0	<b>Yanina.</b>



## ROUTE 37

SANTI QUARANTA—YANINA, 65 miles

An important route : it is suitable for motors all the way, though hilly in parts, especially at the beginning, and high-powered cars are essential. The road has been kept in order, and as early as 1913 there was a service of motors to Yanina. Some of the bridges (which are generally of wood) required repair in that year.

miles

**Santi Quaranta.** The place consisted of a meagre row of mean houses and only one *han* in 1909. The Greeks landed troops here in 1912 to help in the attack on Yanina.

$\frac{3}{4}$  Cross a ridge, 459 ft.

$1\frac{1}{2}$  Branch track N. to **Valona** (see Route 38).

$1\frac{3}{4}$  Bend N. up valley of **Kalesiotikos** river. In winter, if bridges or culverts are washed away, fords may be impassable.

$2\frac{1}{2}$  Branch track S. to **Sayada Bay** (see Route 34).

$5\frac{1}{2}$  Cross Kalesiotikos river, a rushing torrent in winter, by stone bridge of three arches, and ascend valley of l.-bank tributary, the Vrysi, to—

$9\frac{1}{4}$  **Delvino**, alt. 787 ft. Greek-speaking population. A decayed town, straggling over a length of 2 miles.

A track, impassable in winter when snow is deep, branches from Delvino, ascending immediately N. of the town and crossing the ridge of **Evgenik** (3,280 ft.), and then descending steeply to **Argyrokastro** (time, 6 hrs.).

A track comes in from S., from **Voutrinto**, providing a minor route from that point on the coast to the

miles

interior. Voutrinto Bay, at the mouth of Voutrinto lake, is a mile wide and recedes nearly  $\frac{3}{4}$  mile. Low broken shore. Anchorage in centre 14-16 fathoms. This is considered the best anchorage along the coast, but the mud-bank off the Voutrinto river must be avoided.

miles

0

**Voutrinto** (Butrinto). Track enters the marshy plain of Voutrinto, leading E. Plain abounds in wild-fowl. It passes between the lakes of Voutrinto and Riza, and emerges on the plain of Delvino, NE. of Lake Voutrinto, after which it probably crosses over a col in the ridge bounding the plain.

 $7\frac{3}{4}$ 

**Karalibey**. Alt. 590 ft. Thence N. across plain to—

15

**Phiniki** (6 hrs.), crossing the Vistritza river. Thence N. to—

 $19\frac{1}{4}$ 

**Delvino** (8 hrs.), alt. 787 ft.

 $13\frac{3}{4}$ 

**Gardikaki**, alt. 787 ft.

 $17\frac{1}{2}$ 

**Han Mouzina**, or Murzina, alt. 1,968 ft.

Here the road reaches crest of hills above the Drin valley. It then descends down sharp slopes, crossing numerous small valleys.

 $19\frac{3}{4}$ 

**Georgioutzades**, alt. about 1,300 ft.

Here is a branch road to Argyrokastro (see Route 40).

 $21\frac{3}{4}$ 

Cross **Xerias** river, tributary of the Drin, by a bridge. Alt. 984 ft.

 $23\frac{1}{2}$ 

**Kakavia**, alt. 1,213 ft.

 $25\frac{1}{2}$ 

**Han Arinista**. Cross **Fitochi** river by bridge.

31

Alt. 1,542 ft. Road goes up S. side of Drin valley.

 $34\frac{1}{2}$ 

Branch route l. to Argyrokastro, said to be passable for wheels (see Route 45 at mile  $29\frac{1}{4}$ ).

 $34\frac{3}{4}$ 

**Han Delvinaki**, alt. 1,797 ft.

 $36\frac{1}{4}$ 

A horse-track offering an alternative route to

miles

**Yanina** turns here SE. along E. face of the Sutitza Mts. to—

miles

3½

Monastery of **Sosino**. Continue SE. to—

9¼

**Gliziani**. Cross river here, apparently by a bridge.

Continue SE. and turn S. to—

20

**Zitza**, 1¼ hrs. from Gliziani. Thence first ENE. and then SE. to—

23¼

Join main road to Yanina about the middle of the W. side of the lake and marshes of Lapsista (at mile 59¼ below).

36¾

**Zarovina** lake, less than ¾ mile long. Alt. 1,476 ft. **Han Zarovina** near the lake.

38½

Cross **Kormos** river by a bridge. Alt. 1,305 ft. Ascent.

39½

Alt. 1,492 ft.

39¾

**Doliana** to the N. of the road.

40¼

Church to N., alt. 1,496 ft.

41¾

Cross headwaters of **Kalamas** river, which a short distance N. issues from the hill as a full stream.

43½

**Han Kalivaki**, alt. 1,335 ft.

Road to Koritza and Monastir branches l. (see Route 48 at mile 21½).

Route ascends S. up valley of a tributary of the Kalamas.

47½

Cross slight divide at the end of the valley. Alt. 2,099 ft.

47¾

**Han Nerades**, alt. 1,856 ft.

50¾

Alt. 2,034 ft.

51½

**Han Dovra**.

52½

**Petziali** village about ¾ mile on r. or W. **Asprangeli** monastery ¾ mile to E., high up on the mountain-slope.

miles

53 $\frac{1}{4}$ 

Alt. 1,939 ft. Road enters plain.

55 $\frac{1}{4}$ **Astaka**, alt. about 1510 ft. Astaka or Lapsista lake to W. of road.58 $\frac{3}{4}$ **Han Lykostomo**, alt. 1,540 ft., at point where Dioryx river and marshes are crossed by a high stone dike and a bridge. On the heights just S. of this bridge, near Gardiki, the Turks in 1912 took up their position to defend Yanina from attack along this road.The **Dioryx** is here navigable by barges. It drains from Lake Yanina into the marshes S. of Lake Lapsista; thence it follows a subterranean course SW. for about 3 miles under a block of upland, to reappear as a tributary of the Kalamas at Veltzista.

Road follows the edges of the Lapsista plain at the foot of the white limestone Michikeli mountains.

59 $\frac{1}{4}$ Track described under mile 36 $\frac{1}{4}$  above enters r.60 $\frac{3}{4}$ **Han Besduni**.61 $\frac{3}{4}$ **Besduni**, alt. about 1,570 ft.

65

**Yanina**, alt. 1,587 ft.

## ROUTE 38

## SANTI QUARANTA—VALONA, 69 miles

This is a coast route, very little used as a through route. It is a mountain track, and in very many parts a bad one, though the local mule can make his way along it with a load on his back.

miles

0

**Santi Quaranta**. Follow Delvino road (see Route 37).1 $\frac{1}{2}$ 

Branch I. and N. from Delvino road, following a tributary of the Kalesiotikos river.

4 $\frac{1}{4}$ **Vromero**, alt. about 150 ft.

miles

9      **Nivitza Bubarit**, alt. about 650 ft., at head of valley.  
Follow W. side of coastal ridge.

13      **Lukovo**, alt. about 650 ft.

15      **Pikerni**, alt. about 490 ft.

The coast continues steep and rugged, and is followed more or less directly by a winding track crossing numerous ravines, and connecting a number of small coastal settlements (see Route 42).

18 $\frac{3}{4}$       Turn N. inland up a valley to—

20      **Borsi**, alt. about 260 ft.

An alternative route from Borsi to Vranishta, recommended by an Italian route-book, is :

miles

20      **Borsi**.

Ascend NW. out of the village and pursue difficult and winding mountain track to—

32      **Kalarat** (see Route 41 at mile 26 $\frac{1}{4}$ ).

Track goes along NE. face of the Khimari range, crossing ridges and stream valleys to—

35 $\frac{1}{2}$       **Vranishta** (see mile 38 below).

Cross a stream and continue up valley to—

22 $\frac{1}{4}$       **Zore**, alt. about 1,640 ft.    **Flera** is 1 $\frac{1}{2}$  miles across valley.

25      Pass, alt. about 3,600 ft., into the basin of the Sushitza. In this part of its course the track crosses numerous streams and spurs of the coastal range.

Descend the Sushitza valley.

38      **Vranishta**, alt. about 950 ft.

43      **Trebatsi**, alt. about 2,120 ft.

45      **Singjertsit** Pass, about 2,620 ft.

Descend Dukati stream to—

49      **Dukati** (Dukadhes), 1,312 ft. Track from Logara Pass joins here (see under mile 15, above, and Route 42 at mile 18).



miles.	
50	Cross a col, 1,785 ft., and descend into the <b>Gerjina</b> valley. Path hereabouts is usually very bad.
53	<b>Trajas</b> (Draghiades), alt. 1,318 ft., $4\frac{1}{2}$ hrs. from Dukati.
	Descend to coastal plain at head of Valona Bay.
58	Reach coast and follow it N.
	The road proceeds along the side of the bay, but high above the water. The path is a mere series of ledges along the cliff.
63	<b>Kryo-nero</b> , a cove with a spring of water on the shore. 4 hrs. from Trajas.
67	<b>Valona</b> , town.
$68\frac{1}{4}$	<b>Valona</b> , landing-place.

## ROUTE 39

TEPELENI—DELVINO,  $33\frac{1}{2}$  miles

This route branches from the Argyrokaastro-Tepeleni route (see Route 40) about 8 miles N. of Argyrokaastro, and forms the shortest though not the easiest route from Tepeleni to Delvino. It is a mountain track the whole way.

The times are those of the walking pace of a horse.

miles	h.	m.	
0	—	—	<b>Tepeleni.</b> Follow Route 40 for 10 miles (miles $29\frac{3}{4}$ — $19\frac{3}{4}$ ).
10	0	0	Track leaves Route 40 at mile $19\frac{3}{4}$ . Alt. about 540 ft.
			Track goes first SSW., and then S. of W. up the valley of a tributary of the Drin river.
$15\frac{1}{2}$	2	0	<b>Gardiki</b> village.
			Road climbs S. slope of valley by steep ascent to—
$17\frac{1}{2}$			<b>Proniki</b> , alt. about 1,960 ft.
20			<b>Skarfitza</b> Pass, alt. about 2,950 ft. Descent S. to—

miles	h.	m.	
23 $\frac{1}{2}$	6	30	<b>Senitza</b> , alt. about 1,115 ft. Cross ridges and valleys to—
27 $\frac{1}{2}$			<b>Payani</b> , alt. about 910 ft. Cross a valley and then a high ridge to—
33 $\frac{1}{2}$	9	45	<b>Delvino</b> , alt. 787 ft.

## ROUTE 40

GEORGIOUTZADES—TEPELENI, 29 $\frac{3}{4}$  miles

## VIA ARGYROKASTRO

At Georgioutzades this route connects with the main route from Yanina to Santi Quaranta (see Route 37). An authority of 1915 says :—A very good road, passable by motors, goes from Georgioutzades along the l. bank of the Drin, passing Goritza and Gorandza, to Argyrokastro. From there to Tepeleni there is said to be a route passable for wheels. Road runs generally NNW. The plain between Georgioutzades and Argyrokastro is liable to annual flooding by the Drin river. Whether the floods affect the road is not stated. The plain is very marshy.

The times are according to the local estimate.

miles	h.	m.	
0	0	0	<b>Georgioutzades</b> , alt. about 980 ft. Road starts due E.
$\frac{3}{4}$			Route branches off N. from the Santi Quaranta-Yanina road.
3 $\frac{3}{4}$			<b>Goritza</b> village to l.
7 $\frac{3}{4}$			<b>Gorandza</b> .
10 $\frac{3}{4}$			To r. of road a bridge crosses the Drin river. This is described as a high narrow bridge of 5 arches.
11 $\frac{3}{4}$	3	30	<b>Argyrocastro</b> , alt. about 1,050 ft.
19 $\frac{3}{4}$			Mountain track to Delvino branches off to the W. (see Route 39).

miles	h.	m.	
20 $\frac{3}{4}$ (?)			An important spring is reported half-way between Argyrokastro and Tepeleni.
27 $\frac{3}{4}$			Drin river joins the Voyusa to the E. of the road. The united river is 250 yards broad.
29 $\frac{3}{4}$	10	30	<b>Tepeleni.</b> Alt. of bridge 427 ft.; of town, 640 ft. Town is approached on all sides by narrow passes. It is a place of strategic importance as commanding the valleys of the Voyusa, Drin, and Bentza rivers.

## ROUTE 41

TEPELENI—CHIMARA, 33 $\frac{1}{4}$  miles

There is no modern information with regard to this route. But Leake, who reported on the route early in the 19th century, speaks of it as extremely difficult, which, indeed, it must be, as it crosses two formidable mountain ranges. He says that the distance between the two places is only 20 geographical miles, but the natives reckon it to be a 4 days' journey in winter.

The route is undoubtedly a rough mountain track. As to its detailed course, Leake merely indicates that it goes up the valley of the Bentza river to Nivitza, and over a difficult pass to the valley of the Sushitza river. The route as given here is the probable one; but it is impossible to place absolute reliance on its details, because (a) Leake does not indicate the actual line across the Sushitza valley, (b) the maps of this part of Epirus are not trustworthy in detail.

miles	
0	<b>Tepeleni.</b> Alt. of bridge 427 ft.; of town, 640 ft. Track runs up the valley of the Bentza river.
4	<b>Bentza</b> village, alt. about 492 ft. Track W. from here to Nivitza certainly exists, but is not shown on the map. The climb at the head of the valley must be very steep.

miles

- 9        **Nivitza**, alt. 3,280 ft. Track now turns due S.
- 10 $\frac{1}{4}$     **Gusmari**, alt. 3,608 ft. Track continues a little E. of S.
- 12 $\frac{3}{4}$     Summit of a mountain ridge, about 4,200 ft. There the track turns first W. and then SW. down a stream valley.
- 17 $\frac{1}{4}$     **Koutzi** (Katz) of Leake), alt. about 1,650 ft. Track then turns WNW. and goes down the upper valley of the Sushitza river, on the S. bank of the stream, and sometimes close to it.
- 24 $\frac{1}{4}$     Alt. about 820 ft. Branch track, which has just crossed the river, comes in from the NNE. from **Polyana**.  
Route now turns SSW. up a stream valley to—
- 26 $\frac{1}{4}$     **Kalarat** village, alt. 1,640 ft. (See Route 38, alternative under mile 20).  
Track now goes SSE. up the NE. and E. slopes of Mt. Kalarat.
- 29       Summit of the E. ridge of the mountain, about 3,250 ft. Track now descends due S.
- 30 $\frac{3}{4}$     **Pilyuri**, alt. about 1,960 ft. Track descends SW.
- 33 $\frac{1}{4}$     **Chimara**, alt. 623 ft.

## ROUTE 42

VALONA—CHIMARA—SANTI QUARANTA, 60 $\frac{1}{2}$  miles

Difficult mountain track. Can be used for mule transport. At least two days' and probably three days' journey.

miles

- 0        **Valona**, town.  
Route proceeds along the shore of the bay to—
- 4        **Kryo-nero**, a cove and spring on the shore.  
Route proceeds along the side of the bay of Valona, but rises high above the water. Path is a mere series of ledges along the cliff.

miles.

- 9 Leave coast and cross plain at head of Valona Bay (Dukati Bay. For anchorages see under **Valona** in *Gazetteer of Towns*).
- 14 **Trajas** (Dragiades), alt. 1,318 ft., 4 hrs. from Kryonero. Ascend out of valley (Gerjina stream). Path usually very bad.
- 17 Cross a col, 1785 ft.
- 18 **Dukati** (Dukades), alt., 1,312 ft.,  $4\frac{1}{2}$  hrs. from Trajas. Join track from Santi Quaranta (Route 38 at mile 49).
- 21 $\frac{3}{4}$  **Logara** pass, 1,994 ft.  
This pass is impracticable in stormy weather.  
Descent towards coast by a zigzag ledge of the most forbidding kind. This is called the Strada Bianca.
- 23 $\frac{1}{2}$  Torrent of **Aspri Ruga**. Alt. about 330 ft.  
Track ascends to about 1,800 ft.
- 26 **Palasa**, alt. about 980 ft.  
Track descends into a ravine, alt. about 160 ft., then up a ridge, about 750 ft.; then into another ravine, about 150 ft.; and then to—
- 27 $\frac{1}{2}$  **Drymades** (Zrimazes), alt. about 980 ft.,  $1\frac{1}{2}$  hr. from Palasa.  
Track descends into ravine; alt. about 230 ft.
- 28 $\frac{3}{4}$  **Liattes** (Lates), 1 hr. from Drymades.
- 30 **Vouno**, alt. about 1,640 ft. Break-neck track along mere shelves.  
Track descends into ravine; alt. about 230 ft.
- 34 **Chimara**, alt. 623 ft. The continuation southwards to Santi Quaranta is a route which would only be used as a last resort. It is a winding track, mostly following the steep and rugged coast, and crossing numerous ravines. It is really a series of local tracks connecting a number of small coastal settlements. Leaving Chimara, it skirts **Spilia** Cove, a small anchorage exposed to S. and SW.



miles

37½

**Port Palermo**, a bay with two arms. The northern, Armareda Bay, protected westward by a high ridge of land, has depths of 15–35 fathoms, and is sheltered against all but SW. winds. The south-eastern part, Cala Kaka, is sheltered on the S. by Palermo Point; it has rather less depth, and is open westward. (Near Palermo Point are one or two rocks awash.) Between the two arms is Fort Palermo, and 2 miles E. is the village of Kiaparo.

40

**Grava** or **S. Demetrio** Bay, open to the S., lying immediately E. of Palermo Point.

45½

**Pikerni**. For continuation see Route 38, miles 15–0.

60½

**Santi Quaranta**.

## ROUTE 43

YANINA—VALONA, 124½ miles

No general report as to the state of the route can be given, since reports as to various parts of it describe it in different terms. The reports will therefore be given with reference to sections of the road.

The times are according to local estimates.

miles    h.    m.

0      0      0

**Yanina**, alt. 1,587 ft.

For road to Messiafor Han see Route 48.

21½      6      0

**Han Kalivaki**.

34      12      0

**Messiafor Han**, alt. 1,148 ft. From here to Klisura the road was reported in 1904 to be a rough hilly cart-track, some parts of which have been made into a chaussée. Recent reports describe it as a fair road.

Cross bridge. Road runs along E. side of Voyusa river, and then for about 1½ miles up its tributary the Sarandaporos river.

miles	h.	m.	
36			Cross the <b>Sarandaporos</b> by a bridge, and proceed down its N. bank to E. bank of Voyusa, which, after turning NW., the road follows closely.
46 $\frac{3}{4}$			<b>Furka</b> village.
50 $\frac{3}{4}$			Cross bridge to W. bank of the <b>Voyusa</b> . Village of <b>Petrani</b> near this bank.
56 $\frac{1}{2}$	20	0	Road continues down W. bank of Voyusa to— <b>Premeti</b> , alt. 793 ft. Pop. 4,000. Clean, well-built town. The Voyusa here runs through a gully, and is crossed by an old but good stone bridge. Three mosques and three churches. The road from here to Tepeleni is in a very bad condition (1915), the bridges over the torrents having been broken down, necessitating frequent fordings.
57			Road crosses bridge here to E. bank of river and runs down that bank, crossing several tributary streams, and finally crosses by a bridge the Desnitza stream, which comes down from the NW., just before arriving at Klisura.
68			Route 47 branches N.
68 $\frac{1}{4}$	24	0	<b>Klisura</b> , alt. 560 ft. The Voyusa river now turns W. through a tremendous gorge, known in old times as the Stena ('Narrows') of the Aous, and considered in those days to be eminently defensible. The gorge is about 7 $\frac{1}{2}$ miles long, extending to—
76			<b>Dragoti</b> , to which the road from Klisura follows the N. bank of the river. Road continues W. to bridge (alt. 393 ft.) at—
79	29	0	<b>Tepeleni</b> , alt. 639 ft., 1 $\frac{1}{4}$ miles below confluence of Voyusa and Drin rivers. Surrounded with walls, and situated on a high plateau surrounded by lofty mountains. In 1903 there were 70 Moslem, 30 Christian, and 100 Gipsy families.

miles

The road from here to Valona was described in 1915 as a good horse-track (14 hrs.). An Italian traveller described it in 1896 as difficult; a 2 days' journey for caravans to Valona. A recent Italian report says that a road from Tepeleni to Valona has been for years under construction, but only the part from Piskupi bridge on the Vlaina river to Valona has been finished.

From Tepeleni there is a mountain track to **Skoza**, affording an alternative route to that followed below. But this present route, if usable, is probably preferable. Instead of crossing the bridge at Tepeleni, the alternative track leads along the r. (E.) bank of the Voyusa, sometimes beside, sometimes above the stream, and descends finally by zigzags cut in the rock to a ford at Skoza. Distance about the same as by the route below.

- |                  |   |
|------------------|---|
| 83               | <b>Marmaliaga</b> , $\frac{1}{4}$ mile W.   |
| 88               | <b>Martolosi</b> , $1\frac{1}{2}$ miles S. Road follows bank of Voyusa river as far as—   |
| 95               | <b>Skoza</b> , alt. 209 ft. From here alternative routes to Tepeleni, see above, and to Hamidi bridge, as follows. This is a mountain track, shorter than the main route. |
|                  | miles   |
| 0                | <b>Skoza</b> , alt. 209 ft. Ascend to—  |
| 3 $\frac{1}{4}$  | <b>Stevaster</b> (Sevaster), alt. 1,394 ft.<br>Track goes with many twists and turns past Belusi, and round the head of a stream valley to—                               |
| 8 $\frac{1}{4}$  | <b>Malketz</b> , alt. 849 ft. 1 hr. from Stevaster. Thence road runs NW. to—  |
| 14 $\frac{1}{2}$ | <b>Kropishti</b> , crossing a height of 875 ft. Road descends into Sushitza valley.   |
| 15               | Join main track at mile 116 $\frac{1}{4}$ , below.  |

miles

- Ascend NW. out of the valley of the Voyusa river.
- 97 $\frac{1}{4}$  **Preveni.**
- 103 Cross ridge and descend to village of **Goritzi**, alt. 1,013 ft.
- Telegraph line comes in from Valona and follows the track to Premeti.
- Descend into valley of Vlaina river.
- 113 $\frac{1}{4}$  Cross **Vlaina** river by **Piskupi** bridge, and go S. up E. bank of Sushitza river. From this bridge to Valona the road has recently (1916) been made into a carriage road.
- 116 $\frac{1}{4}$  Track from Skoza (see under mile 95 above) joins from E.
- 116 $\frac{1}{2}$  Cross the **Sushitza** river by **Hamidi** bridge, a good bridge of six arches.
- Route goes N. down W. bank of Sushitza river for 2 $\frac{3}{4}$  miles. This river never dries even in the hottest season of the year.
- The Sushitza valley is scantily inhabited and cultivated.
- 118 $\frac{3}{4}$  Bridge (broken in 1903) over a tributary of the Sushitza.
- 119 $\frac{1}{4}$  Turn W. up valley of a tributary to village of—
- 121 $\frac{1}{4}$  **Kisbarda** (Kisbarza). Hence road runs NNW. and then turns SW. to—
- 124 $\frac{1}{2}$  **Valona**, 1 hr. 20 min. from Kisbarda.

## ROUTE 44

## ARGYROKASTRO—PREMETI, 20½ miles

A mountainous track: no details as to its nature are available.

miles

- |     |   |
|-----|---|
| 0   | <b>Argyrocastro</b> , alt. 627 ft. Start SSE. along road W. of Drin river.  |
| 1¾  | Bridge over the Drin. Turn l. over this and proceed ESE.  |
| 3½  | Cross the <b>Lyumi Suhos</b> , a tributary of the Drin. Alt. about 490 ft. Track turns ENE. up the valley of the Lyumi Suhos, passing the small town of <b>Libok-hovo</b> , on a hill 1¼ miles S. |
| 5½  | Bridge, alt. about 650 ft. Cross to N. bank of Lyumi Suhos, and ascend the end of a ridge in NE. direction to—  |
| 6¾  | <b>Suhos</b> village, alt. about 1,640 ft. The N. side of the valley is then ascended to—   |
| 13  | Summit of a high ridge, alt. about 3,600 ft., from which the track descends N. into the upper valley (alt. about 2,300 ft.) of a stream flowing NNW.  |
| 16  | <b>Seperi</b> village. Ascend steeply to the summit of another high ridge (alt. about 3,600 ft.), and descend to—   |
| 20½ | <b>Premeti</b> , alt. 793 ft. Reported to be 10 hours from Argyrocastro.  |



## ROUTE 45

ARGYROKASTRO—HAN DELVINAKI,  $29\frac{1}{2}$  miles

This route is reported to be usable by wheeled vehicles, but this is doubtful.

miles

- |                 |  |
|-----------------|--|
| 0               | <b>Argyrokastro</b> , alt. 627 ft. This route has not been described, but it follows apparently the route from Argyrokastro to Premeti (Route 44) as far as—   |
| $5\frac{1}{2}$  | Bridge over the <b>Lyumi Suhos</b> , alt. about 650 ft., below Libokhovo. Route then appears to follow the valley of that river, first NE., and then SE. up to the top of a ridge near its source, to— |
| $11\frac{3}{4}$ | <b>Stavroskiaz</b> i, alt. about 1,800 ft. Route goes S. and SW. down another river valley to—   |
| 21              | <b>Vostina</b> , alt. about 1,640 ft. Route continues to descend the valley, first S., then SW., along a road which, from Vostina onwards, is marked as a track for wheeled traffic.                   |
| $27\frac{1}{4}$ | <b>Delvinaki</b> village, alt. about 1,300 ft.   |
| $29\frac{1}{4}$ | Join Santi Quaranta—Yanina main road (Route 37 at mile $34\frac{1}{2}$ ).  |
| $29\frac{1}{2}$ | <b>Han Delvinaki</b> .   |

## ROUTE 46

VALONA—KORITZA

From Valona as far as Berat there are two routes :—

(A) Via Pitzari.

(B) Via Fieri.

A traveller of 1896 speaks of the route to Berat by Pitzari as being shorter than the other, but more difficult, especially in the part by Sina.

The authority for the first (1914) was concerned with military operations in the country. The authority for the second is W. O. Military Report on Western Turkey in Europe, 1906 (the authority for this particular route being dated 1904), with additions from more recent information. This first is the regular route to Berat. Telegraph and telephone lines follow it, and there is an exchange at Selinitza. A mounted man may leave Valona in the morning and reach Berat at night. Guns have been conveyed on horses by both routes.

(A) VALONA-BERAT via PITZARI AND KERVENI

An authority of 1914 says :—From Valona to Pitzari the road is usable for wheeled traffic, and could be improved for motors. There is a ferry at Pitzari across the Sushitza. (There are four other possible ferries—to the S. : (1) at Luboña ; (2)  $\frac{3}{4}$  mile farther S. To the N. : (1) at Bunavia ; (2) at Kesar on the Voyusa.) There were, however, only about a dozen ferry-boats in all, and many of these were destroyed. Cavalry can ford, except in high floods. From the Sushitza to Selinitza the road is also usable for wheeled vehicles, and could readily be improved. From Selinitza to Berat is an easy mountain track, and guns were taken over it on horseback. It is not possible for wheeled traffic. The approach to Berat is down the bed of the Proni Plashnikut, and Berat is reached over a long, good bridge for wheeled traffic over the Osum (called Semeni in its lower course).

An authority of 1915 says that this route takes 13 hours on horseback. It is usually followed by caravans in winter, when the route via Fieri, below, is liable to be flooded.

miles

0	<b>Valona</b> , landing-place.
1 $\frac{1}{4}$	<b>Valona</b> , town. Road turns NE. and proceeds over a low ridge down to—
7	Ferry over Sushitza river to <b>Pitzari</b> . Alt. 98 ft.
9	<b>Armeni</b> , centre of bitumen mining district. Route now mounts the Treblova hills.

miles

10      **Selinitza**, alt. 886 ft., 4 hrs. from Valona. This is reported as a good place for camping, with very good water.

11 $\frac{1}{4}$       Ferry over the **Voyusa** river to **Selishti**.  
(There is reported to be another ferry at Dubkan, 2 miles W. of Selishti.)

Boats were (1914) kept above the village, and if necessary taken down stream and up the Sushitza to Pitzari. 7 or 8 horses to one boat. River liable to alter channel. Deepest part (normal) 12–14 ft.

From Selishti climb ENE. out of the valley over hills into dense scrub in parts (plenty of cover) by wide and easy mountain track (horses only) to—

17 $\frac{1}{2}$       **Ndrenova**, alt. 2,034 ft., at summit of pass (Chafa Visit). Strongly-built monastery with some accommodation, shade, grass, good water, a market, and some supplies. Good horse-track, without difficulty, descends into the valley of Yanitza and up it. Cross it near Han Arositani, and follow up r. bank.

26      **Ura Sel.**

29 $\frac{1}{4}$       **Siña**, alt. 2,359 ft. Descend into the valley of the Proni Plashnikut, and for the last 2 miles follow the river bed. (Map shows a track from Siña reaching the Proni Plashnikut near Velebisti village, and it is reported (1915) that there is a bridge over the river.)

34 $\frac{1}{4}$       **Berat**, alt. about 225 ft. 1 $\frac{1}{2}$  days by caravan from Valona.

#### (B) VALONA-BERAT via FIERI

The route via Fieri passes at first along the E. side of the lagoon of Valona, which lies NW. of the town, and is a shallow, brackish sheet of water surrounded by malarial marshes. The old track is usually very muddy, and sometimes it was better to go through the shallow water of the lagoon, where the bottom is firmer. The Italians, however, according to a report of January 1916, have constructed a good motor road

from the port of Valona to the town, and from the town to Drizit on the Voyusa, nearly opposite to Feras. There is a light railway as far as Mifoli. The road runs along the slope of the hills above the marshes, and is slightly longer than the track which runs more directly across them. It is being metalled, and is thoroughly well constructed. Bridges were temporarily constructed of wood, but are being permanently constructed of masonry. At the crossing of the Voyusa there is a pontoon bridge, and from here to Fieri the road has been improved.

Beyond Fieri the track leads over the plain of the Muzakya. It is liable to be flooded in winter. It is passable for wheels between Fieri and Kumani. From Kumani to Pobrati it is a horse-track only. From Pobrati to Berat it is again fit for wheels. From Fieri to Berat is reported by one traveller to be 8 hours' journey on horseback. There are dangerous marshes on the Muzakya plain, and a guide is necessary.

The road from Ura Hassan Beyut to Berat is only passable in summer, as in the winter it is almost completely under water. For an alternative to this part of the route see route from Zareza at mile 27.

miles

0	<b>VALONA.</b> Road skirts marshes along coast (lagoon of Valona) N. of town.
2½	<b>Arta.</b> Pop. 2,000.
4	<b>Goritza.</b>
8¼	<b>Tzerkovina.</b>
9	<b>Skrofotina.</b>
11	<b>Mifoli,</b> 1 mile E. of road.
12	<b>Novosela.</b>
12½	<b>Drizit.</b> Cross river <b>Voyusa</b> (pontoon bridge): <b>Feras</b> village on further (r.) bank, ¾ mile down stream, and 7½ miles E. from mouth of Voyusa.
16	<b>Levani.</b> Ascend through a gorge to cross <b>Peshtan</b> spur of <b>Mala Kastr</b> a hills, alt. about 160 ft. Descend to—
22	<b>Fieri,</b> alt. about 70 ft., a large village with a well-built market-place, on the <b>Yanitza</b> , tributary of

miles

Semeni river. Turn E. and cross river skirting S. edge of **Muzakya** plain (partly marshy) which is watered by the lower Semeni.

From this point it is possible to take a route to the N. of the one here described. It follows closely the course of the Semeni river and rejoins the present route at Ura Hassan Beyut (see below). A traveller who describes it neither commends it nor finds much fault with it. As it keeps on low ground, it would be bad, perhaps impassable, in rainy weather.

27

**Zareza.** Cross **Buvalitsa** tributary of Semeni.

From here an alternative route to Ura Hassan Beyut Bridge (see mile  $43\frac{3}{4}$  on main route below), or, if necessary, to Berat, runs as follows. As this alternative route runs on higher ground it might be better in wet weather.

miles

27	<b>Zareza</b> , alt. about 80 ft.
$30\frac{3}{4}$	<b>Lyuari</b> , alt. about 550 ft.
$34\frac{1}{2}$	<b>Kuryani</b> , alt. about 270 ft.
35	<b>Donofrosa</b> , alt. about 320 ft.
$40\frac{1}{2}$	<b>Vokopouli</b> , alt. about 950 ft.
$43\frac{3}{4}$	<b>Ura Hassan Beyut</b> , alt. 105 ft. In reverse direction, the times are : from Ura Hassan Beyut to Vokopouli, 1 hr., to Donofrosa 2 hrs., to Lyuari 5 hrs. 20 mins.

From Vokopouli, the route may be continued to Berat as follows :

miles

$40\frac{1}{2}$	<b>Vokopouli</b> , alt. about 950 ft.
$42\frac{1}{2}$	<b>Halvajiya</b> , alt. about 230 ft.
$44\frac{3}{4}$	<b>Breshtyani</b> , alt. about 800 ft.
$48\frac{3}{4}$	<b>Berat</b> , alt. about 225 ft.



miles

- 31 **Kumani.** Malaria prevalent. Continue ENE., crossing several streams and marshy ground and passing some small villages.
- 33 **Roskovets.**
- 35 $\frac{3}{4}$  **Kalfani.**
- 37 $\frac{1}{4}$  **Pobrat.**
- 37 $\frac{3}{4}$  Ascend from plain, crossing spur of hills. A fair metalled road, made under the direction of Essad Pasha, is presently followed to Berat.
- From altitude about 330 ft., descend to **Osum** river and cross it by—
- 43 $\frac{3}{4}$  **Ura Hassan Beyut** bridge. 1 hr. 50 m. from Berat. 2 miles above the point where it joins the **Devoli** to form the **Semeni**. Continue up the Osum valley.
- 47 $\frac{3}{4}$  Track to **Elbasan** diverges l. and N. 35 $\frac{1}{2}$  miles.
- 50 $\frac{3}{4}$  **Berat**, alt. about 225 ft. Join route (A) above.

## BERAT—KORITZA

From Berat up the River Osum to Gradishta route was reported in 1914 as passable for wheels. From Gradishta there is a very good mountain path fit only for horses round the N. of the densely wooded Tomor mountain (7,933 ft.: distinguishable from great distances, e. g. Elbasan and Moskopolye, by its three peaks) and down into the Tomoritza valley (1 $\frac{1}{4}$  miles wide). The track follows up the l. side of the valley for a few miles. The river is crossed a few miles below Tomoritza, and a hill is climbed, passing Leskova to a Turkish blockhouse at the summit, 4,600 ft. Thence over the hills to Protopapa, from which there is a steep drop into Kelizoni valley, where there is good camping-ground. From here there is a steady rise over heavy ground to Moskopolye, whence there is a driving road down from the hills and over the plain to Koritza.

From Valona,  
route (A).

miles

34 $\frac{1}{4}$

**Berat**, alt. about 225 ft. Follow SE. up r. bank of **Osum**.

41

**Gradishta**, alt. about 550 ft. Turn NE. up a valley.

From here an alternative route to the Tomoritza river goes S. instead of N. of Tomor mountain.

miles

0

**Gradishta**.

4

**Kapinova**, alt. about 2,950 ft.

6

**Stani Kalmak**, alt. 4,920 ft.

10 $\frac{1}{4}$

**Oyanik**, alt. about 2,120 ft.

12 $\frac{3}{4}$

**Tomoritza** river.

This is the better route if the season permits.

44

**Peshtyan**, alt. about 980 ft.

46 $\frac{1}{2}$

**Tomori**, alt. about 2,450 ft. Thence round lower spurs of Tomor mountain, crossing water-courses.

49 $\frac{3}{4}$

Summit, about 4,365 ft. Road bears ESE. and descends.

54

**Tomoritza** river. Proceed up its l. bank.

From here a short route leads across the river to **Dovreni** and up to the blockhouse at mile 62. This route is often used by travellers. The distance is about 5 $\frac{1}{2}$  miles as against 8 by the other route.

56

Ford the river, alt. about 1,140 ft., which splits in the dry weather into many small shallow channels. Over hills to—

59

**Leskova**, alt. about 1,960 ft. Road bends NE. and ascends.

62

Summit of **Guri Prere** pass, 4,600 ft. Blockhouse. Good water. Wooded and grassy country. Four paths meet here which the blockhouse commands.

From Valona,  
Route (A).  
miles

Good springs 1 mile E. of and below blockhouse. This pass is deep in snow for several months in the year.

Turn E. Descend steeply to a stream, cross it, and ascend **Kumuls** pass (alt. about 3,600 ft.) to—

65 $\frac{1}{4}$  **Dusari**, alt. about 2,300 ft. Continue E. over hills.

70 $\frac{1}{2}$  **Protopapa**, alt. about 1,960 ft., which commands valley from a height. Sharp descent.

72 **Kelizoni** stream, alt. about 980 ft., flowing N. into **Devoli** river. Excellent water and camping-ground in Kelizoni valley.

Continue over hills ESE. over rocky track, mostly rising, to—

79 $\frac{1}{2}$  **Moskopolye**, alt. 3,763 ft. Many Roumanians here. Wealthy town, and largest, except Berat, on road; situated in a well-cultivated basin.

Continue E. Well-cultivated land from here on.

81 $\frac{1}{2}$  Alt. 4,055 ft. Winding descent.

85 Plain begins. Cultivation.

86 **Votzkop**, alt. about 2,950 ft.

90 $\frac{1}{2}$  **Koritza**, alt. 2,740 ft.

The following times are quoted from Koritza on this route in the reverse direction :—

hrs. mins.

1 10 Votzkop.

3 10 Moskopolye.

10 0 Dusari.

12 0 Leskova.

17 45 Tomori.

21 45 Berat.

## ROUTE 47

## YANINA—MESSIAFOR HAN—PREMETI—BERAT

The times are according to the local estimate.

An authority of 1904 says :—This is a rough hilly cart-track, some parts of which have been made into a chaussée. The route is difficult in places, but is passable for carts throughout.

Times given are the walking pace of a horse.

miles

0

**Yanina**, alt. 1,587 ft.

For road Yanina to Messiafor Han see Route 48, and Messiafor Han to near Klisura see Route 43.

34½

**Messiafor Han**, alt. 1,148 ft.

56½

**Premeti**, alt. 793 ft.

68

Road branches N. from Route 43 and leaves the **Voyusa** valley, and follows the **Desnitza** valley up its l. bank.

72½

Cross a tributary to **Babait Han**, alt. about 590 ft.

76

**Han Vinchusit** or **Venchos**, alt. about 620 ft.

From here there are two routes, described below as (A) and (B) :

## ROUTE (A)

Cross the **Desnitza** to r. bank, and continue to ascend, leaving the river.

80

**Chafa Kitzok**, alt. about 2,780 ft.

81½

Cross headwaters of the **Proni Lavdarit**, alt. about 2,130 ft., flowing N., and ascend and follow a ridge.

85

**Glava**, ½ mile SW., below road.

Road makes long windings and continues on high ground.

88½

**Rahova**, alt. about 3,050 ft.

92

**Durmish** (position doubtful), alt. about 1,700 ft.

93½

**Tepani**, ½ mile l.

miles

98 $\frac{1}{2}$ **Dobronik.**99 $\frac{1}{2}$ **Kerveni**, alt. about 720 ft.

Descend to Osum river and cross bridge to—

101 $\frac{1}{2}$ **Berat**, alt. about 225 ft. Time from Yanina 37 hrs. 20 min.

## ROUTE (B)

This is apparently the old route, now superseded by the part of the modern road to which it is alternative.

miles

76

**Han Vinchusit**, alt. about 620 ft.Bend r. at the *han* to continue due N. up the valley.

80

Summit of ridge at the head of the valley, alt. about 1,730 ft. Descend valley of stream flowing N. to the Osum river.

88

**Han Totyes** (Tozari).

Road descends the bed of a torrent, and then mounts hill on l. bank of Osum river.

92 $\frac{1}{2}$ 

Alt. 1,045 ft.

95

Alt. about 510 ft.

99 $\frac{1}{2}$ **Berat**, alt. about 225 ft. Time from Yanina 37 hrs. 20 min.

Times on this route are quoted in the reverse direction thus—Berat to Han Totyes, 4 $\frac{1}{2}$  hrs. ; summit of ridge, 6 $\frac{3}{4}$  hrs. ; Han Vinchusit, 8 $\frac{1}{4}$  hrs.

## ROUTE 48

YANINA—HAN KALIVAKI—KORITZA—MONASTIR,

144 $\frac{1}{4}$  miles

This road was constructed by the Turks between 1886 and 1897. A recent report speaks of it as suitable for motors all the way, though hilly in parts, especially at the beginning, and high-powered cars are essential.



An authority of 1913 states that the road, at any rate as far S. as Koritza, could be traversed by motors, but that some bridges were then out of repair. The Ochrida-Monastir road Route 68, joined at mile  $126\frac{3}{4}$  below, is excellent.

The southernmost part of the road is reported to have been kept in order of recent years.

miles

0	<b>Yanina</b> , alt. 1,587 ft. Road leaves the town on the NW.
$3\frac{1}{4}$	<b>Besduni</b> , alt. about 1,570 ft.
$4\frac{1}{4}$	<b>Han Besduni</b> .
$6\frac{1}{4}$	<b>Han Lykostomo</b> , alt. 1,540 ft., at the point where the Dioryx river and marshes are crossed by a high stone dyke and bridge (see further Route 37 at mile $58\frac{3}{4}$ ).
$9\frac{3}{4}$	<b>Astaka</b> , alt. about 1,510 ft. Astaka or Lapsista Lake W. of road.
$11\frac{3}{4}$	Alt. 1,939 ft. Road leaves plain.
$12\frac{1}{2}$	<b>Petziali</b> village about $\frac{3}{4}$ mile W., and <b>Asprangeli</b> monastery $\frac{3}{4}$ mile E. of road, high up on the mountain slope.
$13\frac{1}{2}$	<b>Han Dovra</b> .
$14\frac{1}{4}$	Alt. 2,034 ft.
$17\frac{1}{4}$	<b>Han Nerades</b> , alt. 1,856 ft.
$17\frac{1}{2}$	Alt. 2,099 ft. Road descends a valley to—
$21\frac{1}{2}$	<b>Han Kalivaki</b> , alt. 1,335 ft., 6 hrs. from Yanina.

Road to Santi Quaranta  $43\frac{1}{2}$  miles (see Route 37) branches 1.

General direction N., but there are many turns. A short distance beyond the *han* there is a small plain 12 miles in circumference. Road good though hilly. It ascends and descends a spur (alt. about 2,600 ft.) of the Mavrovouni (Malyidushku) range to—

$26\frac{1}{2}$	<b>Alizot</b> , alt. about 1,570 ft.
$28\frac{3}{4}$	Alt. about 2,900 ft.

miles

Here a track branches l. by **Ostanitza** to Messiafor Han. This is the old route. The time from Ostanitza to Han Kalivaki is given as  $4\frac{1}{4}$  hrs.

32 **Boroztian**, alt. about 1,600 ft.

Here is a carriage road r. to **Konitza**,  $8\frac{1}{2}$  miles. From Konitza a mountain track leads direct to Yanina (see Route 49).

34 **Messiafor Han**, alt. 1,148 ft., 12 hrs. from Yanina. Melissopetra and Mesaria villages near by. Bridge. Here the road crosses the Voyusa, and  $1\frac{1}{2}$  miles farther on the Sarandaporos. From here a good cart-track branches NW. to Premeti and to Berat or Valona. (See Routes 43, 47.)

The valley is here cultivated in gardens.

43 **Glina**, alt. 1,860 ft. Road now winds upward over spurs of **Grammos** range.

45 $\frac{1}{2}$  **Leskoviki**, half burnt in 1914. Alt. 3,114 ft. Situated on the mountain-side, with a tributary of the Voyusa flowing below.

53 $\frac{1}{2}$  **Grmeň**, alt. 3,714 ft.

56 $\frac{1}{2}$  **Gozdaraje**.

61 $\frac{1}{2}$  **Borova**, Bulgarian village (1913).

63 $\frac{3}{4}$  **Herseg** (Kolonja), alt. 2,723 ft. About 100 houses (1903), all Moslem, on a small plain surrounded with mountains. Market. Road continues level to Selaitza.

An authority of 1903 took  $8\frac{1}{2}$  hours in a carriage from Koritza to Herseg (Kolonja), the road being then very rough.

68 **Selaitza**. Bridge over stream (fordable) needed repair at both ends in 1914.

72 $\frac{1}{2}$  **Elmizi**. Rocky gorge of a tributary of the Osum. It is very suitable for an ambushade, and professional brigands live in the neighbourhood. Road begins winding ascent to—

miles

75

**Kiari Planina**, alt. 3,858 ft. There are two cols here separated by a ravine. A similar winding descent follows to the plain of **Koritza**. There are horse-tracks cutting off bends in the road.

79

Alt. 2,995 ft.

83

**Dvoran** (Tepejik).

87 $\frac{1}{2}$ 

**Koritza**.

93 $\frac{1}{2}$ 

**Plyasa**. A track branches l. to **Lyubanishta** on Lake Ochrida, 16 $\frac{3}{4}$  miles (about 5 hours on horse-back).

94 $\frac{1}{4}$ 

Alternative route, not suitable for motors, to **Monastir** (62 miles), *via* **Biklishta** (9 $\frac{1}{2}$  miles) and **Florina** (43 $\frac{1}{2}$  miles : see Route 67), and to **Kastoria** (42 $\frac{1}{4}$  miles : see Routes 53, 54), runs through fairly easy country. Villages burnt all along the country in 1914. From a point 7 miles along this route, a track strikes NE., and keeping E. of Lake **Prespa** through the villages of **Zagradetz**, **Drenovo**, and **Nekolek**, joins the Struga-Monastir road (see Route 68), and so to **Monastir**.

95 $\frac{3}{4}$ 

Cross **Devoli** river. Good stone bridge, narrow : carts pass one at a time.

96 $\frac{1}{4}$ 

**Han Zvezda**, alt. 2,759 ft. Here begins winding ascent of—

101 $\frac{1}{4}$ 

Mt. **Previtis**, alt. 3,576 ft. Descend into a depression and reascend to 3,432 ft. ; then descend again, leaving **Leshka** (Laisica) village below on r., and beyond it a deep bay of Lake **Prespa** (alt. 2,812 ft.), to the W. shore of which the road now runs parallel, at 1 $\frac{1}{4}$ –2 $\frac{1}{2}$  miles distance.

108 $\frac{1}{2}$ 

Alt. 3,432 ft. Descend winding road to—

112 $\frac{1}{4}$ 

**Goritza**, alt. 2,812 ft., on a bay of Lake Prespa. From here ascend crossing neck of **Vakufche** promontory (3,107 ft.) ; then descend to lake shore again at—

117 $\frac{1}{4}$ 

**Han Steña**, alt. 2,812 ft. Road now runs along shore, at foot of the steep **Galichitza** ridge.

miles

122 $\frac{3}{4}$ 

**Dupeni.** Leave shore of lake, and continue NE. across plain at its northern end.

126 $\frac{1}{2}$ 

**Kozyak.**

126 $\frac{3}{4}$ 

Junction with road Durazzo-Elbasan-Struga-Ochrida-Monastir (see Route 68 at mile 17 $\frac{1}{4}$ ). Alt. 2,966 ft. Road now ascends rather steeply to—

130 $\frac{1}{4}$ 

**Gijavat** Pass, 3,799 ft. Descend winding road.

132 $\frac{3}{4}$ 

**Kazani.**

133 $\frac{1}{4}$ 

*Han*, 2,697 ft.

137

Cross watershed. Alt. 2,992 ft.

138 $\frac{1}{4}$ 

Reach narrow valley of **Bratin** and follow it down.

144 $\frac{1}{4}$ 

**Monastir** (Bitolj), alt. 2,028 ft. (6 hrs. by carriage from *Han Steña*).

## ROUTE 49

### YANINA—MESSIAFOR HAN

This is merely an alternative route, and could not be regarded as of any real importance unless the other routes (see Routes 43, 47, 48) were blocked. Its existence is reported by Leake, but he does not give details. All that can be said of it is as follows :—

It proceeds from **Yanina** in a NE. direction through the wild district of the Zagori to **Konitza** on the Voyusa river due E. of Messiafor Han. So far it is certainly not more than a rough mountain track.

From Konitza it goes W. down the valley of the **Voyusa**. This part of the route is marked in the maps as a road for wheeled traffic.

It reaches the main route at **Boroztian**, close to **Messiafor Han** (see Route 48 at mile 32). Leake gives the time by this route from Yanina to Ostanitza as 16 hours.

## . ROUTE 50

SALONICA—VERRIA—KOZANI—GREVENA—  
YANINA, 174½ miles

The road is reported fit for motor transport as far as Karajalar.

miles

- |     |   |
|-----|---|
| 0   | <b>Salonica.</b> For the first 20 miles see Route 65.   |
| 20  | Route under description branches off SW. from the Salonica-Monastir Route ½ mile W. of <b>Yagljajik</b> . Road goes at first over level, open, and swampy country.  |
| 24½ | Track to <b>Yenije Vardar</b> branches off NW. to <b>Zorba</b> , 2 miles, and <b>Chekre</b> , 6¾ miles ; to rejoin the Salonica-Monastir road (Route 65) at 8 miles, at a point 2½ miles SE. of Yenije Vardar, and 9 miles from junction of Verria road.  |
| 25  | Bridge crosses the <b>Kara Azmak</b> , a small river draining the plain and discharging its waters near the delta of the Vardar. There are a few houses and inns at this point. The Monastir railway follows the general line of this route and crosses the Kara Azmak about 2 miles SE. of this point. Road and railway follow a strip of slightly elevated ground between the Vistritza and marshland to N. |
| 26  | Track branches S. to Katerini (see Route 1 at mile 76½).  |
| 28  | <b>Laniver</b> village ½ mile S. of road.   |
| 28½ | <b>Palihor</b> village S. of road.  |
| 31¼ | <b>Gida</b> village ¼ mile S. of this point ; ½ mile SW. of Gida is Gida-Kapsohora station on Monastir railway.   |
| 33½ | <b>Reshani</b> village.   |
| 35½ | <b>Terhovishta</b> , ¼ mile NW. of road.  |
| 37½ | <b>Kavashla</b> village, N. of road.  |



miles

39      **Stavrosh** village.42 $\frac{1}{2}$       **Mikros**.45 $\frac{1}{2}$       Cross Salonica-Monastir railway, having Verria station on r. Alt. at station, 262 ft.46      **Verria** (Karaferia), alt. 617 ft.

The main road from here to Kozani (i.e. for 39 miles) is part of a military way made by the Turkish Government between 1886 and 1897. (This road continues S. across the Sarandaparon pass to Elassona: see Route 7.) The times given from here to Kozani are those of the walking pace of a horse. There is another route (a mountain track) which was actually used by the Greek troops in 1912 in the course of their advance from Kozani to Verria. It runs as follows:

miles

46      **Verria**, alt. 617 ft.

Track leaves the town on the NW. edge of it by a bridge over a stream.

It then turns sharp SSW. up the side of the stream valley.

49 $\frac{1}{2}$       Alt. about 1,960 ft.50 $\frac{1}{2}$       Track descends into a stream valley. Alt. 1,666 ft. Ascend out of valley.54 $\frac{3}{4}$       **Xerolivadi**, alt. 3,970 ft.

56      Alt. 4,160 ft. The track climbs by zigzags.

57 $\frac{1}{2}$       Summit of the ridge, 5,080 ft.

From here there is a continuous descent to—

65 $\frac{1}{2}$       **Dörtali**, alt. 2,450 ft., which is on the edge of the plain of the Sari Göl ('Yellow Marsh')

Road goes straight across the plain.

70      Military post (above).

73 $\frac{1}{4}$       Rejoin route.

From Verria, the road to Yanina leads S., and immediately enters into very hilly country and follows

miles

valley of an affluent of the **Ana Dere**, continually rising.

51 $\frac{1}{4}$  Military post.

51 $\frac{1}{2}$  *Han*, alt. 1,214 ft.

53 Military post, alt. about 1,640 ft. Road ascends hill to l., and crosses ridge into valley of the **Vistritz**.

55 Military post, alt. about 2,780 ft.

58 $\frac{1}{2}$  **Kastanya** village,  $\frac{1}{2}$  mile W. of road. Alt. of road about 1,650 ft. 3 hrs. 10 mins. from Verria.

63 $\frac{1}{2}$  **Ishiklar**, alt. about 2,780 ft.; 5 $\frac{1}{4}$  hrs. from Verria. Road now descends in a westerly direction into the **Egri Bujak** plain, the centre of which is occupied by a marshy lake, **Sari Göl** ('Yellow Marsh'). Much corn grown in the region.

68 $\frac{1}{2}$  **Ernevesti**, alt. about 2,450 ft.

71 $\frac{1}{2}$  Branch track across **Egri Bujak** plain to **Haidarli**, 4 miles; **Jelelli**, 4 $\frac{1}{2}$  miles; **Juma**, 5 $\frac{1}{2}$  miles.

73 $\frac{1}{4}$  Military post, alt. 2,264 ft.

The alternative route from Verria rejoins the main road here.

76 $\frac{1}{4}$  **Karajalar**, alt. 2,297 ft. Road now strikes SE. over a ridge.

77 $\frac{1}{2}$  Branch track SW. direct to **Kozani**, 3 miles. Main road, however, continues SE. to within  $\frac{1}{2}$  m. of Jijiler.

81 Route meets the main road coming from the S. from Ellassona and Servia (see Route 7 at mile 65 $\frac{1}{2}$ ). From this point it is 10 $\frac{3}{4}$  miles SE. to **Servia** and 39 $\frac{1}{2}$  miles to **Ellassona**.

Route turns WNW.

81 $\frac{1}{2}$  Alt. 2,113 ft. Road proceeds through cultivated land to—

85 **Kozani** (Kozana), alt. 2,323 ft. 9 $\frac{3}{4}$  hrs. from Verria. Road to Monastir (see Route 55) branches N.

The town is badly built; but, being a great road centre, is an important point for trade. The road from Kozani to Grevena (30 miles) is part of a military

miles

way constructed between 1886 and 1897. It runs down from the station at Sorovich on the Salonica-Monastir railway. There are no high passes or difficulties along this part of the route. A traveller in 1912 describes this part of the road as 'passably fair'. In the Vistritza valley the population was in 1902 preponderantly Turkish. The sides of the valley along the route are covered with vineyards, above which is scrub, but no forest.

87 Road bends WNW.

87 $\frac{1}{4}$  Alt. 2,697 ft.

88 **Koja-Ahmedli**, alt. 2,395 ft.

90 Road begins to run more directly westerly.

91 $\frac{3}{4}$  **Sarihanlar**. Road bends sharply so as to take a SW. direction.

92 $\frac{3}{4}$  **Chukur Ambar**, alt. 2,520 ft. Road ascends and reaches the head of the **Shatista** and descends its valley through cultivated land.

98 $\frac{1}{2}$  Alt. 2,317 ft. Track branches NW. to village of **Shatista**, alt. 3,019 ft., 2 $\frac{1}{2}$  miles.

100 $\frac{1}{2}$  Road bifurcates. A road going off NW. to **Lapsista**, keeping E. of the l. bank of the Vistritza, passes **Vrondista**, 6 $\frac{1}{4}$  miles; crosses the **Vistritza** at 8 $\frac{3}{4}$  miles, and joins another road coming from the S. (Route 53) at 9 $\frac{1}{4}$  miles, and reaches **Lapsista**, 11 $\frac{3}{4}$  miles.

102 $\frac{3}{4}$  Road crosses **Vistritza**, alt. about 1,800 ft., and ascends the hills W. of the valley.

106 Alt. about 2,000 ft. Road to **Lapsista**, **Kastoria**, and **Koritza** branches off here (see Route 53.)

Yanina route runs directly S.

107 $\frac{1}{4}$  Road crosses the **Trubada**, alt. about 1,850 ft., an affluent of the Vistritza, and turns W.

107 $\frac{3}{4}$  **Dovratovo**.

108 $\frac{1}{4}$  Road crosses two affluents of the Trubada and once more takes a southerly direction over undulating country, descending to valley of the **Grevenitiko**.

miles

- 111 $\frac{1}{2}$  Road turns SW.
- 112 Road turns S.
- 113 $\frac{1}{4}$  Road comes close to the **Grevenitiko** (an affluent of the Vistritza) and turns SW. along its l. bank to—
- 115 **Grevena**, alt. about 1,750 ft. Extensive cornfields about the town. Inhabitants in 1902 were Greeks and Turks. Such population as there is between here and Metzovo is chiefly Vlach. The route from here to Metzovo is described by a recent traveller as no more than a track for pack animals. Under **Metzovo** (mile 145 $\frac{1}{2}$  below) will be found the times of the walking pace of a horse in the direction Metzovo-Grevena. Road leaves Grevena in a SSW. direction, passing **Varos** on r.
- 116 $\frac{1}{2}$  Road crosses **Grevenitiko** (alt. 1,847 ft.) and ascends the range dividing that stream from the Venetiko, another affluent of the Vistritza.
- 118 Alt. 2,113 ft.
- 120 Road reaches l. bank of the **Venetiko** and runs along it to—
- 121 $\frac{1}{4}$  **Karaul Venetiko**, military post, alt. about 1,770 ft. At this point the road degenerates into a track. A track continuing the route to Yanina has to be picked up on the other side of the Venetiko, which may be done (a) by crossing the Venetiko here and following the track S. over the hills to **Spihovo**, 2 miles; thence W. to touch r. bank of the Venetiko, and cross its affluent the **Sitova**, 3 miles; or (b) the track may be followed from Karaul Venetiko up the l. bank of the Venetiko, to a point opposite track (a), when the Venetiko is crossed and the track (a) entered on, 2 $\frac{3}{4}$  miles. Alt. 1,802 ft. Track now goes SW. over mountainous country.
- 126 $\frac{1}{4}$  **Kipuryo**, alt. 2,729 ft.
- 128 $\frac{1}{4}$  Military post. Alt. 2,842 ft. Road still ascending.
- 130 $\frac{3}{4}$  Alt. 3,599 ft. Road descends into the valley of an affluent of the **Milia**.

miles

- 132 Alt. 2,969 ft. Here the track bifurcates, one track ascending the valley just mentioned, so as to skirt the E. side of the **Patamash** mountains, which culminate in an altitude of 5,131 ft. Passing between this range and the **Salatovra** mountains it proceeds SW. over very hilly and difficult country to **Metzovo**, 15 miles. In the present itinerary the more direct track is followed, which proceeds W., skirting the northern spurs of the **Patamash** range.
- 133 $\frac{3}{4}$  Track crosses the **Milia**. Alt. 2,950 ft. Track continues SW. up a valley between the **Hagios Georgios** and **Patamash** ranges. Extensive pine-woods, broken by clearings, in this valley.
- 136 Alt. 3,324 ft.
- 138 $\frac{1}{2}$  Alt. 3,760 ft.
- 139 **Milia** village. Road now ascends valley.
- 141 $\frac{1}{4}$  Alt. 5,039 ft. Cross **Pindus** range; military post a little below summit.
- 142 $\frac{1}{4}$  Road has now descended into valley of the **Voyusa** and crosses to l. bank of that stream. Alt. 4,652 ft. At this point the track branches into three, connecting with a number of tracks radiating S., SW., and W. It is possible to reach Yanina eventually by taking any one of these three tracks; what appear to be the two preferable routes are detailed below as (A) and (B).

## (A)

- Follow the track W. down l. bank of the **Voyusa**.
- 145 $\frac{1}{2}$  A track leads S. over the mountains, 4 $\frac{1}{2}$  miles, to make connexion with Route (B) at mile 152 $\frac{1}{4}$ .
- 147 $\frac{1}{4}$  **Karaul Pantaloni**, military post. Track turns SW., and descends sharply to about 3,300 ft.
- 149 Track again ascends to nearly 5,000 ft. over a col. Another steep descent to 2,600 ft. and a rise of 650 ft. follow, before a descent is made of 1,300 ft. in 1 $\frac{1}{2}$  miles to the Varva valley.



miles

156

Cross **Varva** stream.157 $\frac{1}{4}$ 

Military post. Track crosses the **Zagoritiko**, which unites with the Varva to form the **Dipotamo**, a head stream of the Artinos. Track descends valley.

161

Track joins Route (B), below, at mile 162 $\frac{3}{4}$ .

(B)

Proceed S. over the **Pulcha** hills.

143 $\frac{1}{2}$ 

Alt. 4,698 ft.

145 $\frac{1}{2}$ 

**Metzovo**, alt. 2,985 ft. Pop. 9,000 (1906), mostly Vlachs. It commands the entrance to the Metzovo or Zygos pass leading to Trikkala (Thessaly) and the passes leading northwards towards Grevena.

Very little agriculture in the neighbourhood owing to the infertility of the soil. Oxen and sheep are bred. Baggage animals can be obtained in fair quantity. Barracks of moderate size in the town. Snow sometimes lies deep in winter. (See Route 14 at mile 74 $\frac{3}{4}$ .)

On the route Metzovo—Grevena the following times are given as those of the walking pace of a horse: Metzovo to Milia, 3 $\frac{1}{2}$  hrs.; to crossing of Milia stream 5 hrs.; Karaul Venetiko, 8 hrs.; Grevena, 10 hrs.

The road from Metzovo to Yanina was originally a Turkish paved road. In later Turkish times it appears to have been usable for wheeled traffic, and from the crossing of the Artinos (Metzovitiko) river to have been a made road for 12 $\frac{1}{2}$  miles into Yanina. But it was chiefly used for pack-horse traffic between Epirus and Greece (Thessaly), because wheeled vehicles could not get over the Metzovo Pass to Trikkala and Larissa. When the Greek Government in recent years put heavy import duties on goods this pack-horse traffic between the Greek and the then Turkish territory of Epirus through the Metzovo Pass came practically to an end, though the local traffic between Metzovo and Yanina went on. But the comparative desertion of the road caused it

miles

to be neglected, and it seems to have deteriorated. Since Yanina came into Greek territory, in 1913, the old pack-horse traffic must have revived. The route from Metzovo follows the course of the Metzovitiko (Artinos) river for  $17\frac{1}{2}$  miles towards Yanina. The carriage road follows the W. mountain slope above the level of the river. In winter pack-animals use the carriage road, the river being then high. But in summer they follow an easier route which twists and turns across the river bed along the bottom of the valley. The times given from here to Yanina are those of the walking pace of a horse.

147      Track from **Chaliki** (see Route 52 at mile 6) joins from SE.

147 $\frac{1}{4}$       Alt. 2,654 ft. Track now runs down the valley of the **Metzovitiko**, at first W. and along the l. bank.

148 $\frac{1}{4}$       At this point a shorter but much more difficult alternative route to Yanina goes off to l.

miles

0      Parting from main route.

$1\frac{3}{4}$       **Dervendishta.**

$4\frac{3}{4}$       **Prosgoli.**

$10\frac{1}{4}$       **Gotishta.**

$13\frac{1}{4}$       Join main route again 2 miles after this road has crossed the Artinos river (see mile  $164\frac{3}{4}$ , below).

148 $\frac{3}{4}$       Cross to r. bank of **Metzovitiko.**

149 $\frac{1}{2}$       **Tekes** convent, alt. 2,395 ft.  $1\frac{1}{2}$  hrs. from Metzovo. Track goes in a NW. direction, following course of the Metzovitiko.

150 $\frac{3}{4}$       Military post.

152 $\frac{1}{4}$       **Tria Chania**, alt. 2,281 ft.  $2\frac{1}{2}$  hrs. from Metzovo. At this point track from N. referred to under Route (A) at mile  $145\frac{1}{2}$  above comes in. Track under description turns SW. down the valley of the Metzovitiko (called Artinos below the confluence of the Dipotamo: see mile  $162\frac{3}{4}$ , below).

miles	
155 $\frac{1}{4}$	<b>Han Fesombey</b> , alt. 1,991 ft.
157 $\frac{1}{2}$	Military post.
157 $\frac{3}{4}$	Alt. 1,709 ft.
162 $\frac{3}{4}$	Cross <b>Artinos</b> river just below confluence of the Dipotamo. Route (A), above, joins present route (B) on farther bank. Alt. 1,512 ft. Track now becomes a made road going with many zigzags over the <b>Drisko</b> mountains on western side of valley of the Artinos, and descending to Yanina on the shores of the Lake of Yanina.
164 $\frac{3}{4}$	Alternative track described under mile 148 $\frac{1}{4}$ , above, rejoins.
166	Alt. 3,100 ft. Descend.
168 $\frac{1}{2}$	<b>Ardonista</b> .
169 $\frac{1}{4}$	<b>Han Lefka</b> , alt. 1,581 ft. The road now goes through the plateau valley 3 miles broad.
171 $\frac{1}{4}$	Water mill : ground here marshy.
171 $\frac{1}{2}$	Alt. 1,555 ft. Road turns due W.
172	<b>Katsika</b> . Road now runs NW. to Yanina.
174	Junction with road from Philliada (Route 28 at mile $\frac{1}{2}$ ).
174 $\frac{1}{2}$	<b>Yanina</b> , alt. 1,587 ft. 8 $\frac{1}{4}$ hrs. from Metzovo.

## ROUTE 51

YANINA—KALARRHYTAI, 21 $\frac{1}{2}$  miles

A pack-horse road. The times are those of a traveller on foot with pack-horses.

miles	hours	
0	0	<b>Yanina</b> , alt. 1,587 ft.
3 $\frac{1}{2}$	1	<b>Han Katzika</b> . Turn off beyond this point r. on path leading, at first SE., across the plain of Koutzoulío.
6	2 $\frac{3}{4}$	Branch track r. to <b>Koutzoulío</b> and <i>han</i> , $\frac{1}{2}$ hr., <b>Koloniati</b> , $\frac{3}{4}$ hr., and down to <b>Han Betzani</b> $\frac{3}{4}$ hr.,

miles	hours	
		joining the Yanina-Arta carriage road $2\frac{1}{2}$ hrs. from Yanina (see Route 28 at mile $5\frac{1}{2}$ ).
9	4	Route turns E. past monastery S. of Gulas and up hill (continuation of Kyra ridge) to— <b>Kontovrachi</b> , village on NW. edge of a ravine 1,600 ft. deep, in which the <b>Artinos</b> river flows SW. Hence the path goes up the edge of the ravine NE. and after $1\frac{1}{4}$ miles descends steeply with windings to the river.
11	$5\frac{1}{2}$	Cross river by bridge. The path now ascends SE. along the flank of the <b>Prosgoli</b> Mts., a steep range with fairly level top, about 6,500 ft., to—
14	$7\frac{1}{2}$	<b>Han Paleochori</b> , alt. 3,250 ft. Then over spurs of the mountain, passing above Davitziana village.
18	$9\frac{1}{2}$	<b>Hagios Georgios</b> Monastery. Cross the SE. end of the range at 4,100 ft. View E. across narrow gorge of Syraku to Kalarrhytai, from which a very steep winding path leads down into gorge and up to the present point.
		Proceed N. to—
20	$10\frac{1}{4}$	<b>Syrakou</b> , alt. 3,800 ft.; pop. 3,600. Built on a steep hillside above the gorge of Kalarrhytinios river to E. Descend steeply into the gorge and up the other side, then S. to—
$21\frac{1}{2}$	11	<b>Kalarrhytai</b> , alt. 3,870 ft., pop. 842. Paths NE. over Toskia pass (Route 52) and S. to Arta (Route 24).

## ROUTE 52

## KALARRHYTAI—CHALIKI AND DRAGOVISTI

(TOSKIA PASS)

A mountain track. The times are those of a traveller on foot with pack-horses.

miles	hours	
0	0	<b>Kalarrhytai</b> , alt. 3,870 ft. From here the path starts E. as to Pramanta and Arta (Route 24);

miles	hours	
		after $\frac{1}{4}$ mile it turns l. uphill and ascends to a high plain, intersected with ravines, lying between Mt. Toskia (a ridge running N. and S. connecting Mt. Peristeri with Mt. Kakarditza) and the gorge of the Kalarrhytinios river.
	2	At the farther edge of this plain the ascent begins (steep and somewhat difficult).
3 $\frac{1}{2}$	3	Summit (6,500 ft.) of <b>Toskia</b> pass, very slightly below the general level of the ridge. There is a short level stretch, and a small secondary saddle below the top on the far side. The path (here very indistinct) leads down a high valley NE., below which it descends steeply into pine-woods. (The valley gradually narrows, and ends at Lepenitza.)
6	4	Bridge carrying the path across the head waters of the <b>Aspropotamo</b> , alt. 3,540 ft.
		Hence the large Vlach village of <b>Chaliki</b> (alt. 4,000 ft., pop. 1,000 in summer) can be reached in 1 hr. ( $3\frac{1}{4}$ miles) northward; the valley here terminates and there are passes to Metzovo and Malakasi (see Routes 50 at mile 147, and 14 (B) at mile 66 $\frac{3}{4}$ ).
		Another path from the bridge leads to the hamlet of Lepenitza and over a pass to Vlachos Kastania (about 6 hrs.).
		The path down the l. bank of the Aspropotamo leads to—
9 $\frac{1}{4}$	5	<b>Kotori</b> , alt. 3,400 ft., pop. 215. It then crosses a tributary of the Aspropotamo stream, alt. 2,920 ft.
12 $\frac{1}{4}$	6	Ford the <b>Krania</b> stream, close to its junction with the Aspropotamo, and ascend SE. and S.
14 $\frac{3}{4}$	7	<b>Dragovisti</b> , alt. 3,800 ft.



## ROUTE 53

## KOZANI—KASTORIA—KORITZA, 96 miles

This road leaves the Salonica-Yanina road (see Route 50 at miles  $100\frac{1}{2}$  and 106) by two branches—the first at a point  $15\frac{1}{2}$  miles WSW. of Kozani, the second (that here described) at a point 21 miles WSW. of Kozani, the two branches converging  $2\frac{1}{2}$  miles short of Lapsista. The present route from mile 21, below, runs in a NW. direction and passes over hilly country to the valley of the Pramoritza, a tributary of the Vistritza. It is reported to be in a bad condition from Kastoria to Biklishta, but a Greek officer has recently (1916) marked this part of the road as suitable for wheeled traffic. Beyond that point it becomes fit for motor transport. With this the report of the Greek officer above-mentioned agrees.

miles

0	<b>Kozani</b> , alt. 2,323 ft. For the earlier part of this route see Route 50, miles 85–106.
21	Alt. about 2,000 ft. Branch N. from Yanina road (Route 50).
$25\frac{1}{2}$	<b>Krivtsi</b> , alt. about 2,450 ft.
28	Road crosses the <b>Pramoritza</b> , alt. about 1,840 ft.
$28\frac{1}{4}$	<b>Panareti</b> to E. of road.
$31\frac{1}{2}$	Route joins road coming from <b>Vrondista</b> , see Route 50 at mile $100\frac{1}{2}$ . Road for $1\frac{1}{2}$ miles goes closely along r. bank of <b>Vistritza</b> . Alt. about 1,870 ft.
$33\frac{3}{4}$	<b>Lapsista</b> , alt. 2,198 ft. Road now trends NE. and once more towards r. bank of the Vistritza.
$35\frac{3}{4}$	Road crosses the <b>Vistritza</b> (alt. 1,870 ft.) and proceeds almost due N., at an average distance of about $1\frac{1}{4}$ miles from the river.

miles

39 $\frac{3}{4}$  Road descends to and crosses a tributary of the Vistritza. It then takes a NW. direction.

41 $\frac{1}{4}$  **Bogatzko**, alt. about 2,120 ft. After crossing a small tributary of the Vistritza, road crosses a spur (alt. about 2,620 ft.) to descend once more to the Vistritza valley:

44 $\frac{1}{2}$  Cross stream draining the Lake of **Kastoria**, alt. about 2,120 ft.

47 **Hrupishta** (Hurpeshte). Road now runs practically due N. to the Lake of **Kastoria**.

51 $\frac{1}{2}$  Road is now in contact with western shore of lake, round which it winds to—

52 $\frac{3}{4}$  **Kastoria**, alt. 2,237 ft.

The road from here to Kapishtitza makes a considerable detour.

There is a direct track from Kastoria to Kapishtitza which runs as follows :

miles	h.	m.	
52 $\frac{3}{4}$	0	0	<b>Kastoria</b> .
			Road goes W. into the plain.
	1	0	Cross branch of <b>Jelova</b> river.
56 $\frac{3}{4}$	1	30	Leave <b>Zhupanishta</b> to the N.
57 $\frac{1}{2}$			Cross <b>Jelova</b> river. Track ascends the mountain to—
63 $\frac{3}{4}$			Summit of ridge (alt. about 3,300 ft.).
			It then descends, crossing three stream valleys to—
69	5	10	<b>Kapishtitza</b> , alt. 2,897 ft.

A track to Lake Rudnik joins Route 55 at mile 28. A Greek officer has recently (1916) marked this road as suitable for wheeled traffic.

miles

0

**Kastoria**, alt. 2,188 ft. The road leaves Kastoria on the W. side of the town, and then almost immediately turns S., later SE.,

miles	miles	
		and later E., along the S. shore of Lake Kastoria, and then NE. and N. to—
	7	<b>Mavrovo.</b> It then runs E. for 3 miles, and then NE.
	13	Alt. 2,624 ft. Here begins a peculiarly intricate series of zigzags, first towards—
	14	<b>Bobishta</b> , which stands just off the road ; and later to—
	19 $\frac{1}{4}$	<b>Vlacho Klisura</b> , alt. 4,040 ft., 4 $\frac{1}{2}$ hrs. from Kastoria.
		From here the road descends by zigzags.
	22 $\frac{1}{4}$	Alt. 2,510 ft. Thence down to the S. end of—
	24 $\frac{1}{4}$	Lake <b>Rudnik</b> , alt. about 1,700 ft.
		Road runs along SE. shore of lake.
	28 $\frac{3}{4}$	<b>Rudnik.</b>
	32 $\frac{1}{4}$	Road joins Route 55 at mile 28.
		From Kastoria the road goes NW.
54 $\frac{1}{4}$		Cross a stream flowing into Lake Kastoria, and ascend its valley.
56 $\frac{1}{2}$		Col, 2,953 ft. Road now descends.
62		Road (alt. about 2,100 ft.) now crosses, and ascends the valley of, the <b>Jelova</b> , keeping to its r. bank.
65		Cross to l. bank of Jelova.
65 $\frac{3}{4}$		Recross to r. bank of Jelova.
66 $\frac{3}{4}$		Recross to l. bank of Jelova.
67 $\frac{1}{4}$		Alt. 2,480 ft. Branch road N. to <b>Pisoderi</b> and <b>Florina</b> (see Route 54).
67 $\frac{1}{2}$		Road crosses <b>Jelova</b> and continues W. along l. bank of an affluent of that stream. Alt. 2,500 ft.
68 $\frac{1}{2}$		<b>Breznitza</b> , alt. about 2,620 ft.
69		Alt. 2,618 ft. Road begins to run SW.
71 $\frac{1}{2}$		Alt. 2,874 ft.
73 $\frac{1}{2}$		<b>Smrdes</b> h (Smardesi), alt. 3,265 ft. Road now begins to descend valley of an affluent of the Devoli, keeping on r. bank of the stream.

miles	
76	Cross stream.
76 $\frac{1}{8}$	Recross to r. bank.
77 $\frac{1}{2}$	<b>Kapishtitza</b> (Kapestitza). Direct track from Kastoria (mile 52 $\frac{3}{4}$ ) rejoins here. Road now turns NW. and descends valley of the <b>Devoli</b> . Alt. 2,897 ft.
80 $\frac{1}{4}$	<b>Biklishta</b> , alt. 2,854 ft., $\frac{1}{2}$ hr. from Kapishtitza. The Turks in 1912 attempted to defend the Tsangon pass at this point. Road now runs through level country intersected with water-courses.
82 $\frac{3}{4}$	Alt. 2,671 ft. 1 hr. from Kapishtitza. Road crosses Devoli.
86 $\frac{3}{4}$	<b>Tsangon</b> , alt. 2,760 ft., 1 hr. 40 mins. from Kapishtitza. Road turns W.
	The pass of Tsangon, or Klisura of Devoli, is the natural gate from the champaign country of the Vistritza (Haliaemon) river into other extensive plains. The pass is by far the lowest pass through the main Pindus chain. The pass is narrow, but not extraordinarily strong, the hills which border it not being very abrupt. The narrowest part of the pass is reached 20 mins. from Tsangon.
89 $\frac{1}{4}$	Road joins the Koritza—Monastir road (see Route 48 at mile 94 $\frac{1}{4}$ ).
96	<b>Koritza</b> . 4 hrs. from Kapishtitza, 9 hrs. from Kastoria.

## ROUTE 54

KASTORIA—FLORINA, 32 $\frac{1}{4}$  miles

This road is a decayed chaussée, which is reported to be in a bad condition, but might be fit for light vehicles. A Greek officer (1916) marks it as possible for wheeled traffic.

miles	
0	<b>Kastoria</b> . The route follows the Kastoria—Koritza road (see Route 53) as far as a point 67 $\frac{1}{4}$ miles from Kozani.

miles	
14½	Route diverges from the Koritzza road in a general N. by E. direction up the <b>Jelova</b> valley. Alt. 2,480 ft.
15¾	<b>Roula</b> (Roulia), immediately W. of road.
18¼	<b>Turnovo</b> , alt. 2,789 ft.
18½	Road crosses the Jelova.
20	<b>Ostima</b> , alt. 2,936 ft.
21	<b>Jelova</b> , on E. of road. Alt. 3,310 ft.
23½	Road winds much, making detours N. round the headstreams of two tributaries of the Jelova.
25	Road turns E. and continues in this general direction to Florina.
25½	<b>Pisoderi</b> . Track to <b>Buf</b> , 5½ miles (see Route 67 A).
26	Alt. 4,505 ft. Road makes a long detour S., reaching alt. 5,010 ft., crosses watershed and begins to descend NNE. into valley of stream that flows through Florina.
28½	Alt. 4,196 ft.
29¼	<b>Armensko</b> , on stream S. of road.
30	Road makes final detour N. Alt. about 3,000 ft.
32¼	<b>Florina</b> , alt. 2,170 ft. For road to Monastir see Route 65 at mile 95¾.

## ROUTE 55

### KOZANI—MONASTIR, 62 miles

This road is a chaussée reported fit for motor transport. A Greek officer (1916) has marked it as such.

miles

- 0 **Kozani**, alt. 2,323 ft. The road crosses a ridge, rising to 2,645 ft., and then descends and, leading N., skirts the western side of the **Egri Bujak** plain at the foot of the lower spurs of the **Karli Dag** mountains, which rise to 6,785 ft.



miles	
2 $\frac{1}{2}$	Alt. about 2,260 ft.
3 $\frac{1}{2}$	Alt. about 2,060 ft.
11 $\frac{3}{4}$	<b>Komano</b> , alt. about 2,120 ft. Road now follows l. side of valley of an affluent of the Nalbandkői, proceeding in a NW. direction.
17 $\frac{1}{2}$	<b>Kayalar</b> , alt. 1,982 ft. Road now proceeds N.
21	<b>Nalbandkői</b> , alt. 1,893 ft. Road here crosses Nalbandkői stream.
24 $\frac{1}{4}$	Cross a low ridge dividing basins of Ostrovo and Petrsko lakes. Alt. 2,130 ft. Road takes a NW. direction.
28	Track from Kastoria joins here (see Route 53 under mile 52 $\frac{3}{4}$ ).
29 $\frac{1}{2}$	Branch road NE. to <b>Sotir</b> (Soter), $\frac{1}{2}$ mile, and <b>Sorovich</b> station on Salonica–Monastir railway, 3 miles (10 hrs. by carriage from Kastoria).
30 $\frac{1}{2}$	Alt. 1,988 ft. Road crosses Salonica–Monastir railway; then continues in a northerly direction closely following the line on its E. side.
35 $\frac{1}{2}$	Road crosses railway and follows its W. side.
38	Road recrosses railway and follows its N. side.
40 $\frac{1}{4}$	Railway station, alt. 2,149 ft. Railway continues W.; road leaves it in NW. direction.
40 $\frac{3}{4}$	Road joins Salonica–Monastir road (see Route 65 at mile 85 $\frac{3}{4}$ ).
62	<b>Monastir</b> .

## ROUTE 56

KALABAKA—OSTROVO, 17 miles

Bridle-path

miles	
0	<b>Kalabaka</b> , alt. 820 ft. From here take the Metzovo pass road (see Route 14 A, miles 46–51 $\frac{1}{4}$ ) NW. up the Salamvria valley.

miles

5 $\frac{1}{4}$ 

Wooden bridge crossing **Mourgani** river, alt. 886 ft. Turn r. before the bridge and follow the l. bank of the Mourgani river NW., up a fertile valley through maize fields.

9

Ford the river where it bends NE. (alt. 1,050 ft.) and ascend the r. bank of the tributary stream flowing S. from Meritza. The sides of this tributary valley are partly fields and partly scrub.

13

Cross to the l. bank (the large village of **Meritza** stands high on r. bank at this point).

16

Route trends NW., ascending out of the valley to—

17

**Ostrovo**, alt. 2,360 ft., pop. 526.

From this place a track leads W. and NNW. over the mountains to **Kipuryo** on the Metzovo-Grevena road (see Route 50 at mile 126 $\frac{1}{4}$ ). No details available.

## ROUTE 57

OSTROVO—NEA SMOLIA, 44 miles

This is not a made track, but it is good going with few severe gradients. The route follows the Chassia watershed, between the basin of the Salamvria on the S. and those of the Vistritza and Xerias on the N.

miles

0

**Ostrovo**, alt. 2,360 ft. From here ascend NW.

1 $\frac{1}{4}$ 

Summit 3,085 ft. From this point the watershed is followed, generally eastward, with a few interruptions.

Track NW. to **Kalapodi**, 1 mile, **Kritiades**, 6 miles, and beyond, descends the N. slope (see Route 58 under mile 14 $\frac{3}{4}$ ). Follow a track ESE. to—

8 $\frac{1}{2}$ 

Pass, alt. 2,230 ft. Road from Kalabaka to the Vistritza valley crosses the watershed (see Route 58 at mile 14 $\frac{3}{4}$ ). On this road,  $\frac{1}{2}$  mile S. of the pass, is **Velemisti**, alt. 1,970 ft., pop. 476.

miles	
15	Another pass (alt. 2,165 ft.), taking the road from Kalabaka to the Vistritza valley (see Route 59 at mile 14½) by <b>Asproklisia</b> (alt. 2,000 ft., pop. 407) which lies 1 mile S. of the pass.
18½	The ridge here is 2,525 ft. above sea-level, and ½ mile down the steep S. side lies <b>Sinou Kerasia</b> .
20½	The best route here diverges N. of the watershed to avoid a summit of 3,680 ft.
24	Rejoin the watershed.
26	Alt. 3,280 ft.
29	Alt. 4,410 ft. <b>Mavreli</b> , the largest village of this region (alt. 3,700 ft., pop. 681), on a spur to southward (see Route 60).
31½	Watershed trends southward.
37	Mt. <b>Orya</b> , 4,600 ft. Descend SE.
39½	Mt. <b>Phlambouron</b> , 4,068 ft. Thence SW.
43	<b>Vrontismeni</b> , a former frontier-station, alt. 2,920 ft.
44	<b>Nea Smolia</b> , alt. 1,575 ft., pop. 377 (see Route 61 at mile 13¼). <b>Palea Smolia</b> lies just over a low pass in the watershed 2½ miles to the NE.

## ROUTE 58

KALABAKA—VELEMISTI—DIMNITZA, 23¾ miles

This must have been the route, or one of the routes, by which the left wing of the Greek army in Thessaly reached Diskata with intent to turn, if necessary, the passes N. of Elassona. Presumably artillery may be got along it, but its use for such a purpose must involve considerable difficulty. It is a bridle-path. For alternative see Route 59.

miles	
0	<b>Kalabaka</b> , alt. 820 ft. Leave in NW. direction as for the Metzovo pass (see Route 14 A, miles 46-49½).

miles

3½

Turn r. up the l. bank of a stream flowing from NE. Follow this for 1½ miles.

5

Cross stream and ascend the l. bank of a tributary stream coming in from NNW.

Continue in this direction beyond the source of the stream to—

8

Summit of a ridge, about 1,800 ft.

11

**Mourgani** river, here flowing SW. Ford the river at the mouth of a tributary, alt. about 1,150 ft., and ascend the r. bank of this tributary (1¼ miles NNE., 2½ miles N. by W., last section steeply ascending) to—

14¾

**Velemisti**, alt. 1,970 ft., pop. 476; bearing due N. from the ford of the Mourgani. Descend N. across the stream and up again to—

15¼

Pass, alt. 2,230 ft., a depression in the watershed of the Chassia range.

Path hence WNW. to **Kalapodi**, 5 miles, **Kritiades**, 10 miles, and on to the Venetiko valley, joining eventually the Metzovo-Grevena road at **Kipuryo**, 16 miles (see Route 50 at mile 126¼) or farther N.

Path crosses Ostrovo-Nea Smolia route (see Route 57 at mile 8½).

Descend NE. along the r. bank of a stream to—

19½

**Kalapodi** (not to be confused with that mentioned above, 7 miles west), alt. about 1,570 ft.

23¾

**Dimnitsa**, alt. about 1,570 ft., 1 mile S. of the Vistrizta river.

Here the route joins the road from Servia to Grevena (see Route 62 at mile 30¼).

## ROUTE 59

KALABAKA—ASPROKLISIA—DIMNITZA,  $22\frac{3}{4}$  miles

For the strategical importance of this route (a bridle path) see introductory remarks on Route 58, to which this is an alternative. There is a direct track from Asproklisia to Diskata which could no doubt be used by infantry. No information is available about its nature, but it passes through a very rugged region.

miles

- 0      **Kalabaka**, alt. 820 ft. Leave NE., ascending a ridge. The foot-path is very indistinct and rises rather steeply to—
- 4      Summit of the ridge, 2,950 ft., reached in  $2\frac{1}{2}$  hrs.
- 7      Path divides, the right-hand track going along the ridge to Phlambouresi and Mavreli (Route 60), the present route (l.) descending the slope N. to—
- $7\frac{1}{2}$       **Vlachava**. Hence the road proceeds NNW. over undulating country W. of a stream flowing generally NW., and descends to—
- 12      **Paraskevi**, at the junction of this stream with the **Mourgani** river (alt. about 1,310 ft.) flowing W. in a long straight valley. Ascend N. between two tributaries.
- $13\frac{1}{2}$       **Asproklisia**, alt. about 1,670 ft.; pop. 407: a few stone houses.
- Branch track NE. to **Diskata**, about 11 miles.
- Route ascends NNW., crossing the head of a ravine.
- $14\frac{1}{2}$       Pass, 2,165 ft., in the Chassia watershed. Path crosses Ostrovo-Nea Smolia route (see Route 57 at mile 15). Descend.
- $16\frac{1}{2}$       **Sintsa**, alt. about 1,540 ft. Thence N. by W. over low hills, about 1,740 ft., to—
- $22\frac{3}{4}$       **Dimnitza**, alt. about 1,570 ft.



## ROUTE 60

KALABAKA—MAVRELI,  $24\frac{1}{2}$  miles

Mountain track, but a good surface. The times are those of a traveller on foot.

miles	h. m.		
0	0	0	<b>Kalabaka</b> , alt. 820 ft. Leave NE., ascending ridge as in Route 59.
4	2	30	Summit, 2,950 ft.
7			Path divides, the left-hand track descending to Vlachava (see Route 59 at mile 7). The present route (r.) follows the ridge to—
$15\frac{1}{2}$	5	0	<b>Phlambouresi</b> , alt. 2,790 ft.; pop. 296, on a hill S. of the Mourgani valley. The track now winds E. along the S. side of the valley, crossing several tributaries and passing ( $\frac{1}{2}$ mile on r.) the large village of <b>Koniskos</b> .
$21\frac{1}{2}$	7	0	Cross the <b>Mourgani</b> river (2 hrs. from Phlambouresi) on a bridge (alt. 2,790 ft.) beyond which is the village of <b>Gerakari</b> . Turning l. the track crosses a tributary stream and ascends its r. bank steeply over a treeless granite region.
$24\frac{1}{2}$	8	10	<b>Mavreli</b> , alt. 3,700 ft.; pop. 681, the largest village of the Mourgani basin, lying 1 mile SE. from the nearest point of the watershed (see Route 57 at mile 29).
			From Mavreli, what is obviously a difficult mountain track leads to Diskata, about $8\frac{3}{4}$ miles.

## ROUTE 61

TRIKKALA—NEA SMOLIA,  $13\frac{1}{4}$  miles

Mountain track. The times given are those of a traveller on foot.

miles	h. m.	
0	0 0	<b>Trikkala.</b> The path leaves Trikkala NE. by N., running along the plain at the foot of a spur coming down from Mt. Ardamon. Passing the powder magazine (on l., $1\frac{1}{2}$ miles from centre of town) and the villages Lungaki and Krinitza, it traverses on a causeway a large swamp surrounded by maize fields.
$4\frac{1}{4}$	1 45	<b>Zaglania</b> , pop. 439. Go straight on.
$5\frac{1}{2}$		Path leaves the plain and enters a deep gorge in the hills, ascending its W. side.
$6\frac{1}{2}$		Alt. 1,840 ft. Hence path runs fairly level above the ravine through fields to—
$8\frac{1}{2}$		<b>Lioprason</b> , pop. 199. Path now begins to ascend a pass under the summit of Mt. Ardamon.
$9\frac{1}{4}$	4 30	Watershed, 2,430 ft. Descend in NE. direction.
$11\frac{1}{4}$		<b>Neochorotiko</b> river, running in a deep ravine. Apath descends SE. to <b>Neochori</b> (10 miles) on the edge of the plain, and joins the Trikkala—Larissa track at <b>Klokoto</b> (see Route 14 under mile $13\frac{1}{2}$ ).
		Another path ascends NW. and N. to <b>Koniskos</b> ( $9\frac{1}{2}$ miles). Route follows this path $\frac{3}{4}$ mile NW. to a bridge across a stream coming in from the NE.; follow this stream up to—
$13\frac{1}{4}$	6 30	<b>Nea Smolia</b> , alt. 1,575 ft., pop. 377. 2 hrs. from the pass.
		From Nea Smolia a route leads over the mountain and into the Xerias valley, and joins the Larissa—Elassona road at Pertori (see Route 8 Bat mile $29\frac{3}{4}$ ) and the Larissa—Diskata—Grevena road at Magoula (see Route 9 at mile $30\frac{3}{4}$ ).

## ROUTE 62

## SERVIA—DIMNITZA—GREVENA, 44 miles

Von der Goltz, writing in 1898, speaks of this as a new military way. Of its present condition there is no information.

miles

0	<b>Servia</b> (Serfije), alt. 1,420 ft. Road runs SW., along the mountain side.
3 $\frac{3}{4}$	Road through the Sarandaporon Pass to Ellassona branches off to the SE. Alt. 1,808 ft. (see Route 7 at mile 51 $\frac{1}{4}$ ).
4 $\frac{1}{4}$	<b>Karitades</b> (Kaldan), alt. about 1,870 ft.
6 $\frac{1}{4}$	Alt. about 2,720 ft.
6 $\frac{3}{4}$	Alt. about 1,900 ft.
7 $\frac{1}{4}$	Alt. about 1,970 ft.
8 $\frac{1}{4}$	Cross stream, alt. about 1,150 ft.
9 $\frac{1}{4}$	Alt. about 1,970 ft.
10 $\frac{1}{2}$	<b>Mikro Valtos</b> , alt. about 1,640 ft.
10 $\frac{3}{4}$	Alt. about 1,970 ft.
11 $\frac{3}{4}$	Alt. about 1,600 ft.
14 $\frac{1}{4}$	<b>Lazarades</b> (Lazarat), alt. about 1,640 ft.
16 $\frac{1}{4}$	Road crosses tributary of the Vistritz river by a bridge, alt. about 1,150 ft.
	Road crosses a series of ridges and stream valleys.
23 $\frac{1}{2}$	Alt. 2,050 ft.

Road to Diskata branches off SE.

This road is mentioned by Von der Goltz as designed in 1894. The map marks it as a road for wheeled traffic. It extends as a made road to Diskata (7 $\frac{1}{2}$  miles) and no farther.

miles	miles	
	0	Alt. 2,050 ft. Road goes over ridges and stream valleys to—
	6	Alt. about 3,100 ft.
	7½	<b>Diskata</b> , alt. 2,520 ft.
		Route now goes down to fairly level ground as far as—
30¼		<b>Dimnitza</b> , alt. about 1,480 ft. Path from Kalabaka comes in from S. (see Route 58). Road now climbs steeply up hill.
33½		<b>Piniari</b> , alt. about 2,625 ft. Descends into river valley, alt. about 1,850 ft., and then goes N. up hill to—
36½		<b>Phyli</b> , alt. about 2,100 ft., where road turns sharply due W., and later NW.
40¼		Bridge over the <b>Venetiko</b> river, alt. about 1,700 ft. Road then crosses ridge, alt. about 2,130 ft., and descends into the <b>Grevenitiko</b> river valley.
44		<b>Grevena</b> , alt. 1,750 ft.

## ROUTE 63

## DISKATA—ELASSONA, 21½ miles

This is part of the direct route from Grevena to Elassona. The route from Grevena to Diskata is described in Route 62. From Diskata the route follows at first the great line of the annual Vlach migration described in Route 9. Von der Goltz in his book on the war of 1897 clearly indicates that the route from Diskata to Elassona is of considerable military importance; but he gives no description of the actual state of it. He says that the journey may be accomplished in either 2 easy days' or 1 hard day's march, and that he himself did it in 8½ hrs. The time is usually

reckoned at 10–12 hrs. Colonel Boucabeille in his book on the war of 1912 also implies the importance of the route, for in that year the Greeks sent troops to Diskata with the intention of using them to turn the defences of the passes N. of Ellassona, in case the frontal attack on them did not succeed. As a fact it did, and so the troops at Diskata do not appear to have been used for this purpose.

As far as present information goes the route is a mountain track ; but the use of it by the Vlachs, and the military importance attached to it, indicate that it is not difficult. It seems probable that it could be used at a pinch by artillery ; but it is improbable that it could be conveniently used for wheeled transport. On the Greek official map it is marked as a road of the second or third order.

miles

- |     |   |
|-----|---|
| 0   | <b>Diskata</b> , alt. 2,520 ft. The route goes due E. out of the town down the N. side of the valley of the Diskata, which is the uppermost branch of the Sarandaporos river. |
| 5½  | Track crosses the <b>Diskata</b> river, alt. about 1,870 ft., and then climbs steeply up a high ridge to—   |
| 7¼  | Summit of the ridge, 2,788 ft. The track then descends the valley of the Sitar river, a small tributary of the Sarandaporos.  |
| 11½ | Track crosses the <b>Sitar</b> . Alt. about 1,120 ft.   |
| 14¼ | <b>Kephalovrysi</b> , alt. about 820 ft. Route to Larissa diverges here (see Route 9, miles 37–0).  |
| 14½ | Track crosses upper waters of the <b>Sarandaporos</b> river.  |
| 15½ | Track crosses another branch of the Sarandaporos, and ascends ridge.  |
| 17  | Summit of ridge, 1,414 ft.  |
| 18  | Route from Mologousta joins (see Route 8 B at mile 36¾).  |
| 21½ | <b>Ellassona</b> , alt. 889 ft.   |



## ROUTE 64

VODENA—VERRIA,  $24\frac{3}{4}$  miles

The Salonica—Monastir railway runs between these places. No information is available as to the nature of the roads; but they are apparently merely tracks for pack-animals. Whether wheeled vehicles could use them is uncertain, but on the whole improbable. The tracks are two, described below as (A) and (B).

## ROUTE (A)

An upper track through Nyaousta, which keeps to the hills. This is the usual route, and is probably the only route in the wet weather of the winter season. This route is very hilly, as it crosses the valleys of a number of streams which descend from the Vermion mountain. The times given are those of the walking pace of a horse.

miles

0	<b>Vodena</b> , alt. 1,017 ft. Proceed for a mile ESE. along the chaussée leading to Yenije Vardar (Route 65).
1	Turn SE. out of the chaussée. Alt. about 750 ft. Route now enters hilly country.
$2\frac{1}{2}$	Cross stream, alt. about 490 ft.
$4\frac{1}{2}$	Alt. about 980 ft.
$7\frac{1}{2}$	<b>Niyakova</b> (Yanakovo), alt. 656 ft.
12	<b>Nyaousta</b> (Neagush, Agostos), alt. 1,078 ft., pop. 5,640. This small town is on a tabular step at the end of a deep rocky glen. Noted for its vineyards. For 2 miles beyond Nyaousta track follows what is marked in the map as a carriage road.
$12\frac{1}{2}$	Cross <b>Arapitza</b> river, about 650 ft.
16	Cross bridge over stream to <b>Choropani</b> , alt. 623 ft.
$19\frac{1}{2}$	<b>Yavornitza</b> , alt. 557 ft.
21	<b>Tourkochori</b> , alt. 377 ft.

miles	
23 $\frac{3}{4}$	Track crosses the <b>Ana Dere</b> stream by a bridge, 262 ft.
24 $\frac{3}{4}$	<b>Verria</b> (Karaferia), alt. 617 ft.
	Times on reverse route :—
	h. m.
	0 0 Verria.
	1 0 Tourkochori.
	1 30 Yavornitza.
	2 30 Nyaousta.

*Note on Passes branching from this Route*

Immediately W. of the route rises the formidable **Vermion** (Neagush) mountain, highest point about 6,200 ft. There are three passes through it :—

(a) Pass of **Vladova**, running up due W. from Vodena. This is the easiest and most important of the three (see Route 65 at mile 56).

(b) Pass behind **Nyaousta**. This leads to the Sari Göl ('Yellow Marsh') on the route from Verria to Kozani (see Route 50 under mile 63 $\frac{1}{2}$ ). It is difficult and steep.

(c) Pass from **Verria**. This is the pass traversed by the road from Verria to Kozani (see Route 50, miles 46–85). Its natural difficulty and steepness have been modified by the making of the road.

ROUTE (B)

A lower route leading through the plain, and following closely the line of the railway. Its gradients are far easier than those of the upper route, and in the dry weather of summer it would probably be preferable. It is improbable that it could be employed in wet weather.

miles	
0	<b>Vodena</b> , alt. 1,017 ft.
3	After leaving outskirts of town proceeds ESE. along the chaussée to Yenije Vardar (Yanitza) and Salonica (Route 65).

miles	
6	<b>Vertekop</b> , a large village, alt. about 110 ft. Hence road proceeds S. close to line of railway.
9	<b>Rizovo</b> , alt. about 160 ft.
12 $\frac{3}{4}$	<b>Galishan</b> (Golesani), alt. about 230 ft.
15	<b>Yokari Kopanova</b> (Ano Kopanos), alt. about 390 ft.
16 $\frac{1}{4}$	Railway station of <b>Nyaousta</b> (Neagush), alt. about 160 ft. Track crosses railway.
17 $\frac{3}{4}$	Track crosses <b>Koutika</b> river.
19 $\frac{1}{2}$	Track crosses stream.
21	Track crosses stream.
23 $\frac{3}{4}$	Track crosses railway. Alt. about 260 ft.
24 $\frac{1}{4}$	Track crosses the river at Verria by a bridge.
24 $\frac{3}{4}$	<b>Verria</b> (Karaferia), alt. 617 ft.

## ROUTE 65

SALONICA—YENIJE VARDAR—VODENA—  
MONASTIR, 107 miles

This is an important chaussée, metalled most of the way, which, after the opening of the railway, was neglected. If the railway were interrupted it would form the principal means of communication between the Aegean coast and Monastir. It is reported fit for motor transport for 45 miles, a little short of Vodena; beyond that point it is reported (March 1916) as unfit even for ordinary wheeled traffic as far as Negochani; from Negochani onwards the road again becomes fit for motor transport. According to another recent authority the part of the road between Banitsa and Negochani is fit for motor traffic.

Times given are according to the walking pace of a horse.

miles	
0	<b>Salonica.</b> Road leaves Salonica in NW. direction over flat, uncultivated, and partly marshy ground.
2 $\frac{1}{2}$	Road crosses Salonica–Dedeagach railway.

miles

 $2\frac{3}{4}$ 

Military station of Salonica–Dedeagach railway. From here branch road leads  $\frac{1}{2}$  mile N. to village of **Harmanköi**.

Salonica–Üsküb railway and Salonica–Doiran railway run parallel to and S. of this road.

5

**Dudular.** $6\frac{1}{4}$ 

Road again crosses Doiran railway and proceeds in a westerly direction. Village of **Arapli** about  $\frac{1}{2}$  mile S.

 $6\frac{3}{4}$ 

$1\frac{1}{2}$  hrs. from Salonica road crosses **Galiko** river, which flows into Gulf of Salonica. Village of **Shamli** about  $\frac{1}{2}$  mile NW. of this point. Immediately beyond crossing of river (2 branches), branch road diverges r. and N. for Avret Hisar, Doiran, and Strumitsa (see Route 77).

 $13\frac{1}{4}$ 

Road crosses railway to Üsküb.

 $14\frac{1}{4}$ 

**Topsin** village S. of road and Topsin station on Üsküb railway  $\frac{1}{2}$  mile N. of this point. 2 miles S. of this point the line to Monastir crosses the Vardar and diverges southward to Verria, 31 miles. It then comes northward to Vodena, 27 miles.

 $16\frac{3}{4}$ 

$3\frac{1}{2}$  hrs. from Salonica road crosses river **Vardar**. Large masonry bridge. River in the winter is rapid and deep. On r. bank of river there is an inn (alt. 43 ft.) and branch road  $\frac{1}{2}$  mile to village of **Mentesheli**. Between the river and Yenije Vardar several tracks branch off northwards to the **Moglena** hills, and there are several villages  $\frac{1}{2}$ –2 miles N. of the main road.

Marshy land and several villages between this point and 20 miles.

 $18\frac{1}{2}$ 

Branch road NNW. to Karasuli, and thence to Doiran (see Route 76).

20

Branch road SW. to Verria (Karaferia), &c. (see Route 50).

 $21\frac{3}{4}$ 

Some ruins on N. side of road. Road here is only 20 ft. above sea-level. Road now runs to Pella through scattered ruins and tumuli on both sides of the road.

miles

24 $\frac{1}{4}$  **Pella**, spring (5 hrs. from Salonica ; 20 mins. farther on there is another large spring). Scanty remains of the capital of ancient Macedonia under Philip II.

26 Road crosses small stream (alt. 55 ft.) ; ruins of **Banya** just N. of this point.

28 $\frac{1}{4}$  Military post, alt. 46 ft.

29 Track from Salonica—Yanina road (Route 50 at mile 24 $\frac{1}{4}$ ) comes in.

29 $\frac{1}{2}$  Road crosses stream. Ground very marshy to S. of this. Road now takes a more northerly direction to—

31 $\frac{1}{4}$  **Yenije Vardar** (Yanitsa), alt. 85 ft. ; 6 hrs. 10 mins. from Salonica.

Road now goes nearly due W. over a fairly well-cultivated plain skirting the Moglena foot-hills, with several villages and farms to N. and S. of road.

Between Yenije Vardar and Vodena a number of tracks run NW., more or less converging on **Subotsko** (alt. 476 ft.), which is situated in the centre of the broad upper basin of the **Moglenitsa**. From Subotsko there is a carriage road to **Vodena**, 13 miles (see mile 52 $\frac{1}{4}$ , below), and in addition a number of tracks diverge NE. and NW. One goes NW. to **Prilip**, about 37 miles ; by others it is possible to get to **Gevgeli**, about 31 miles, and to **Strumitsa** station, 37 miles. All these tracks cross the **Moglena** (Nije Koshuf) range, which has an average height of 4,600 ft.

35 Road crosses, at alt. of 35 ft., small stream flowing into **Yenije** lake, 2 $\frac{1}{2}$  miles SE.

Ground very swampy.

41 Road crosses stream (alt. 114 ft.) : there is an inn here and the villages of **Sendil** and **Gropa** are respectively  $\frac{1}{4}$  mile N. and S. of the road.

43 Bridge over river **Moglenitsa** ; military post. From here to railway crossing below, the road is possibly



miles

out of repair. The road here enters a broad cultivated valley.

43½ Bridge over **Genish Dere**, a tributary of the Moglenitsa.

45 Road crosses railway to Monastir, alt. 125 ft.

Military post. ½ mile S. is **Vertekop** railway station.

47½ **Cheltikchi**.

48½ Alt. 380 ft.

49¾ Road now enters the mountains at 573 ft. and rises with many turns (a fairly easy ascent).

52¼ **Vodena**, alt. 1,017 ft.

The railway, which has risen by curves and through tunnels for about 11¼ miles from the point where it crossed the Vodena road, is here separated from Vodena by a narrow ravine at the bottom of which flows the tumultuous **Nisia Voda**.

The railway station (alt. 1,010 ft.) is opposite the N. end of the town.

From Vodena to **Subotsko**, 13 miles (see under mile 31¼, above), there is a newly-made carriage road (October 1915).

From Vodena a route, until recently a mere track for pack-animals, which, according to a report of March 1916, has probably been made suitable for wheeled traffic during the enemy occupation, leads to Monastir.

miles

0 **Vodena**, alt. 1,017 ft.

6 **Dragomantsi**, alt. 480 ft.

8¾ **Polyani**.

11½ **Risova**, alt. 780 ft.

15¼ **Strupino**

Route runs NW. and climbs the **Dobropolje** mountain.

miles	miles	
	20 $\frac{1}{4}$	Summit of ridge, alt. about 5,500 ft.
	25 $\frac{1}{4}$	<b>Gradesnica</b> , alt. 2,820 ft.
	27 $\frac{3}{4}$	<b>Staravina</b> .
	30	<b>Zovik</b> .
	32	<b>Cebren</b> . Here route turns S. for 1 mile down the E. bank of the Crna (Kara Su) river.
	33	Bridge over the <b>Crna</b> .
	36 $\frac{1}{4}$	<b>Rapes</b> . Road runs up valley of small tributary of the Crna to the—
	40 $\frac{1}{2}$	Summit of a ridge, alt. about 3,400 ft.
	44 $\frac{1}{4}$	<b>Suhodol-Raja</b> . From here the road descends very soon into the plain of Monastir.
	48 $\frac{1}{4}$	<b>Novak</b> . For route to Monastir see Route 66.
	54 $\frac{1}{4}$	<b>Monastir</b> , alt. 2,028 ft.

The road to Monastir leaves Vodena by the northern end of the town and runs parallel to the Nisia Voda and rises all the way to Vladova.

53 $\frac{1}{2}$  From this point for 2 $\frac{1}{2}$  miles the Nisia Voda flows through a defile: road and railway wind along the sides to S. and N. respectively.

56 **Vladova** village, alt. 1,552 ft. Railway station on opposite side of river and at a distance of 1 $\frac{1}{4}$  miles WNW. To W. of village, defile opens into a flat-bottomed, enclosed basin.

The pass of Vladova or Vodena is the easiest of all the communications from Lower to Upper Macedonia (see Note at end of Route 64 A). In 1912 the Turks attempted to defend the passage at Vladova against the Greeks advancing from the E.

57 A route from here to Kenali, formerly a mountain track, has probably, according to a report of March 1916, been converted during the enemy occupation

miles

into a road suitable for wheeled traffic. It is also reported that this route, although it reaches a great altitude, is probably suitable for artillery.

miles

21 $\frac{1}{4}$ 

**Tekovo**, alt. 1,800 ft. From here the route runs NW.

7 $\frac{3}{4}$ 

Alt. 3,440 ft.

Alt. about 5,280 ft.

20

**Stara Popadija**.

23 $\frac{1}{4}$ 

**Sovi**.

25 $\frac{1}{2}$ 

**Zivonja**.

28 $\frac{1}{4}$ 

**Kremian**.

From here the road descends into the southern part of the plain of Monastir.

31 $\frac{1}{2}$ 

The road crosses the **Sakuleva** river. The French report says that a bridge has recently been built at this point.

33 $\frac{3}{4}$ 

**Kenali**, on the railway 3 m. E. by N. of **Negochani** (see mile 97 $\frac{1}{2}$  of main route below).

57 $\frac{3}{4}$ 

Road and railway leave **Nisia Voda** basin and climb a tributary valley WSW.

62

A low saddle (1,968 ft.) leading to the basin of Lake **Ostrovo**. There are military posts at intervals.

63 $\frac{1}{2}$ 

Road crosses small stream running into Lake **Ostrovo** and also crosses railway, alt. 1,807 ft. Railway now leaves road and proceeds nearly due S. till it reaches shores of lake. Road continues W.

64 $\frac{1}{4}$ 

Road bends NW. **Ostrovo** village 1 mile W. of this point close to lake and railway. **Ostrovo** station, however, is 1 mile NW. of **Ostrovo** village.

65 $\frac{1}{2}$ 

Military post, alt. 1,968 ft. Road crosses low spurs of **Nisi Dag**, forming an arc round the head of Lake **Ostrovo**, which it reapproaches at **Chakan** (below), the extreme depth of this curve being 2 $\frac{1}{2}$  miles from the edge of the lake.

miles

71

**Chakan**, alt. 1,988 ft. Railway runs directly below this village and between it and the lake.

Chakan is at extreme N. of Lake **Ostrovo**. This lake is  $10\frac{1}{2}$  miles from N. to S. Its greatest width is 5 miles. The railway skirts the northern and the greater part of the western shores. After leaving Chakan the railway runs due S. along the western edge of the lake passing **Pateli**,  $7\frac{1}{2}$  miles. It then runs inland SW. to **Sotir**,  $6\frac{1}{4}$  miles. It then goes N., following generally the Kozana—Monastir road until the junction of this with the road under description.

77 $\frac{1}{4}$ 

Bridge over small stream which runs into the Petrsko lake  $3\frac{3}{4}$  miles SSW. of this point.

78 $\frac{1}{2}$ 

**Gornichevo** (Giornitsovo), alt. 3,110 ft.

83

**Banitsa**, alt. 2,382 ft.

85 $\frac{3}{4}$ 

Kozani road (Route 55) comes in from S. Alt. 2,142 ft. Railway is here  $\frac{1}{2}$  mile S. Station. From here railway leaves road and, taking a westerly direction, goes to Florina station, about  $6\frac{1}{4}$  miles. From there it goes N. till it crosses road near Vakufköi, about 5 miles. Florina town is 2 miles W. of Florina station, and a road runs N. from Florina to join the Salonica—Monastir road (see mile 95 $\frac{3}{4}$ ). The road now bends NW. and enters basin of the **Crna** river and goes through slightly undulating country crossing numerous streams.

89 $\frac{1}{2}$ 

Bridge over **Brod** river.

90 $\frac{1}{4}$ 

Railway crosses road in vicinity of villages of **Vakufköi** and **Verbiani**. Alt. 1,991 ft.

92 $\frac{1}{2}$ 

Bridge over **Sakuleva**, affluent of the Crna. Railway now runs E. of road at maximum distance of  $2\frac{1}{2}$  miles. Village of **Sakuleva**,  $\frac{1}{4}$  mile NE. of this point.

95 $\frac{3}{4}$ 

Branch road from **Florina**, 7 miles S. Track comes in from Klabuchishta, 2 m. W., see Route 67 (B) at mile 11 $\frac{1}{2}$ .

97 $\frac{1}{2}$ 

**Negochani**. Road crosses **Rakova** river. Alt.

miles

- 1,998 ft. Another track comes in from Klabuchishta, see mile  $95\frac{3}{4}$  above.
- 98 $\frac{1}{2}$       Cross Greco-Serbian frontier.
- 99      Track comes in from Lažec, 2 m. W. See Route 67 (B) at mile 8.
- 103      Bridge over the **Bistrica**, affluent of the Crna. Railway now runs close along E. side of road.
- 105 $\frac{3}{4}$       Cross-road to Monastir—Holeven road (Route 67 at mile  $1\frac{1}{4}$ ).
- 107      **Monastir** (Bitolj).

## ROUTE 66

MONASTIR—NOVAK, 6 miles

This road is reported (March 1916) to be fit for motor traffic.

miles

- 0      **Monastir**. Road leaves Monastir by the church of Sveti Nedla and proceeds E. across the plain.
- 1 $\frac{1}{2}$       Road crosses river **Dragor**, an affluent of the Crna.
- 3 $\frac{1}{2}$       **Čekrikci**,  $\frac{1}{4}$  mile S. Marshy ground here, continuing all the way to Novak.
- 5      Bridge over arm of the **Šemnica**, which joins the Crna below this point. Road embanked to outskirts of Novak.
- 5 $\frac{1}{4}$       Bridge over **Crna**.
- 6      **Novak**, near the lower spurs of the **Selečka Planina**. From here tracks lead N., E., and S. to villages situated on the slopes of this range.



## ROUTE 67

MONASTIR TO HOLEVEN AND BUF, 13 miles,  
OR FLORINA, 18 miles

Road branches from Salonica-Monastir road at outskirts of Monastir and proceeds almost due S. to **Holeven**. The made road here appears to end and to bifurcate into two tracks, one leading S. to **Buf** and the other SSE. to **Florina**. The latter runs approximately parallel to the Monastir-Salonica road at an average distance of  $2\frac{1}{2}$  miles, several transverse tracks connecting the two. (For alternative (main) road Florina-Monastir, see Route 65 at miles  $85\frac{3}{4}$ ,  $95\frac{3}{4}$ .)

miles

- |                |   |
|----------------|---|
| 0              | <b>Monastir.</b>  |
| $1\frac{1}{4}$ | Cross-road to Salonica-Monastir road (Route 65 at mile $105\frac{3}{4}$ ).  |
| $1\frac{1}{2}$ | Road branches r. and SW. to village of <b>Bukovo</b> , $1\frac{1}{4}$ miles, and to monastery of <b>Kristofor</b> , 1 mile farther on. From <b>Bukovo</b> hill-track continues SW. across <b>Baba Planina</b> to E. of Lake <b>Prespa</b> . |
| 4              | <b>Bistrica.</b>  |
| $4\frac{1}{4}$ | Bridge over <b>Bistrica</b> affluent of the Crna.   |
| $4\frac{1}{2}$ | <b>Holeven.</b>   |

## (A) HOLEVEN-BUF

The more westerly of the two tracks mentioned above proceeds due S. along the lower spurs of the **Baba Planina**. This track connects a string of villages (built on low heights overlooking the plain) with Monastir, and at frequent intervals crosses small mountain streams draining into the plain to the E.

miles  
from  
Monastir.

- |                |                  |
|----------------|------------------|
| $5\frac{1}{2}$ | <b>Barešani.</b> |
| $6\frac{1}{4}$ | <b>Kanina.</b>   |

miles  
from  
Monastir.

6 $\frac{3}{4}$

**Velušina.** Convent.

8

**Gradešnica.**

9 $\frac{1}{2}$

**Dragoš.**

10

Cross frontier into Greece.

10 $\frac{1}{2}$

**Obsirina.** About 1 mile NE. of this is a convent built in a prominent position on a hill.

13

**Buf** (Buh). A hill-track continues to the Kastoria-Florina road, near **Pisoderi**, 5 $\frac{1}{2}$  miles (see Route 54 at mile 25 $\frac{1}{2}$ ).

#### (B) HOLEVEN—FLORINA

The more easterly track leads to **Florina** and crosses the streams, mentioned under (A) above, a little lower in their courses. The country is for the most part level : very few villages.

miles  
from  
Monastir

8

Branch track to village of **Lažec**,  $\frac{1}{2}$  mile E., and Salonica-Monastir road (Route 65 at mile 99), 3 miles.

10

Cross frontier into Greece.

10 $\frac{1}{4}$

Cross **Rakova**, affluent of the Crna.

11

**Sveti Petka**, E. of road.

11 $\frac{1}{2}$

**Klabuchishta**, 1 mile E. Two tracks connect the village with Salonica-Monastir road (Route 65 at miles 95 $\frac{3}{4}$ , 97 $\frac{1}{2}$ ), 3 miles.

13 $\frac{1}{4}$

**Kleshtina** villages, upper and lower. Alt. about 2,060 ft.

16 $\frac{3}{4}$

Spring. 1 $\frac{1}{4}$  miles WNW. from here is monastery of **Sveti Marko**.

18

**Florina** (*Bulg.* Leren).

## ROUTE 68

## MONASTIR—OCHRIDA—STRUGA, 52 miles

A good road, suitable for motors of all sizes at least as far as Ochrida (March 1916). Carriage times, 5 hrs. to Resna, 10 hrs. to Ochrida.

miles

- |                  |  |
|------------------|--|
| 0                | <b>Monastir</b> , alt. 2,028 ft. Leave town at NW. corner.   |
| 1                | Follow r. fork (l. fork leading 2 miles to <b>Brusnik</b> ).   |
| 2 $\frac{1}{4}$  | Follow r. fork (l. fork leading 3 miles to <b>Magarevo</b> ).<br>Ascend narrow valley of <b>Bratin</b> stream.   |
| 7 $\frac{1}{4}$  | Cross watershed, 2,992 ft.   |
| 11               | <i>Han</i> , 2,697 ft.   |
| 11 $\frac{1}{2}$ | <b>Kazani</b> . Ascend winding road to—  |
| 14               | <b>Gijavat Pass</b> , 3,799 ft. Descend rather steeply to plain at northern end of Lake Prespa.  |
| 17 $\frac{1}{4}$ | Junction with road from Koritza (Yanina, Santi Quaranta, &c.): see Route 48 at mile 126 $\frac{3}{4}$ . Alt. 2,966 ft. Turn NW.                        |
| 20 $\frac{1}{4}$ | <b>Resna</b> , alt. 2,828 ft. Pop. about 4,000. A small squalid town, and a centre of Bulgarian propaganda. Follow up a stream flowing S. to the lake. |
| 25 $\frac{1}{2}$ | <b>Krušije</b> , alt. 3,091 ft. Ascend NW. by winding road to—   |
| 28 $\frac{3}{4}$ | <b>Leskovec Pass</b> , 3,871 ft.   |
|                  | Branch track W. to monastery of <b>Sveti Naum</b> on Lake Ochrida, 3 hrs., whence 6 hrs. to Koritza.   |
|                  | Descend from the pass by road with many windings, turning W.   |
| 33 $\frac{1}{4}$ | Alt. 3,061 ft.   |
| 35 $\frac{3}{4}$ | <b>Opeinca</b> (Opanci). Descend WSW. down valley of Opinča stream.  |
| 38 $\frac{1}{4}$ | <b>Kosel</b> , alt. 2,428 ft. Proceed S. to—   |
| 42 $\frac{1}{2}$ | <b>Ochrida</b> , alt. 2,297 ft., on the NE. shore of Lake  |

miles

- Ochrida. Road proceeds generally WNW. along shore of lake, at foot of hills to the N.
- 45 $\frac{1}{4}$  Monastery.
- 46 $\frac{3}{4}$  **Podmolje.** Reach the plain at the N. end of Lake Ochrida, and cross it, still following the shore, to—
- 52 **Struga**, alt. 2,257 ft. Hence a road runs N. to **Dibra** (28 miles), and another road S. and then W. to **Elbasan** (42 miles : for Tirana, Durazzo, &c.).

## ROUTE 69

MONASTIR—KRČOVA—GOSTIVAR—  
TETOVO—ŮSKŮB, 112 miles

This road is reported fit for light motor transport as far as Krčova. This part is 15–18 ft. wide. Fair carriage road on to Han Padališta; thence to Gostivar, owing to steep gradients and insufficient breadth, unfit for wheeled traffic. From Gostivar to Ůsküb route is reported fit for light motor traffic.

miles

- 0 **Monastir.** Route leaves Monastir by the church of Sveti Nedla and proceeds N. and NW. over undulating country, following as much as possible the valleys of the streams *en route*. For 3 $\frac{3}{4}$  miles it coincides with Route Monastir–Prilip (Route 71).
- 2 **Gornji Orizar** village on E. side of road.
- 3 $\frac{3}{4}$  Route assumes NW. direction, and road to **Prilip** branches off r. and NNE. (see Route 71).
- 4 $\frac{1}{4}$  **Raštani** village W. of road.
- 6 $\frac{1}{4}$  **Kukurečani**, alt. 2,044 ft.
- 6 $\frac{3}{4}$  **Dragarina.**
- 9 $\frac{1}{4}$  Cross river **Šemnica**. Alt. 1,949 ft. Village of **Zulica** in neighbourhood. Ascend tributary of Šemnica.
- 12 **Lopatice** village.

miles

13 $\frac{3}{4}$  Ascend to cross ridge separating valleys of Šemnica and Mramorica.

15 Summit, 2,438 ft.

15 $\frac{1}{2}$  **Han Mramorica.**

16 Cross **Mramorica** stream by bridge. Alt. 2,212 ft.

16 $\frac{1}{2}$  Road embanked for next 2 $\frac{3}{4}$  miles.

17 **Murgaš.**

17 $\frac{3}{4}$  Bridge, alt. 2,093 ft.  $\frac{1}{2}$  mile W. on slope of **Strugova Planina** are the village of **Slepče** and monastery of **Sveti Ivan**.

18 $\frac{1}{2}$  **Han Belče**, and village of **Belče** W. of road. Here river **Crna** is reached and road turns WNW. up its r. bank.

A track continues N., crossing the **Crna** immediately. It then goes up a tributary valley to the village of **Zurče** (4 $\frac{1}{2}$  miles), thence to the village of **Ostrelce** (6 $\frac{3}{4}$  miles), and thence over the Dragiseč mountains to **Kruševo**, 10 miles.

19 $\frac{3}{4}$  **Pribilci**, alt. 2,198 ft., on farther bank of **Crna**. Bridge.

21 Road embanked for the greater part of next 5 miles.

21 $\frac{1}{2}$  Bridge over **Crna**, alt. 2,149 ft. Road now runs due W. following closely l. bank of **Crna**.

22 $\frac{1}{4}$  Branch track from **Gornji Divjak** on the **Krčova-Kruševo** road (Route 70 at mile 23) joins road here on r.

23 **Sopotnica**, N. of road.

25 $\frac{3}{4}$  Valley and road turn sharply NNW.

27 Spring.

27 $\frac{1}{2}$  **Dolenci**, alt. 2,103 ft. Road now leaves **Crna** valley and ascends, winding up a tributary valley and over a col (3,274 ft.).

30 $\frac{3}{4}$  Military post. On banks of **Crna** is village of **Demirhisar**, 2 miles W. Road descends to 2,953 ft. for 1 $\frac{1}{4}$  miles; then ascends again.

34 $\frac{1}{2}$  Alt. 3,199 ft. Road turns sharply N. and descends.



miles

35½

Cross **Crna**.

36

Branch track r. and E. to Kruševo (see Route 70).

36¼

Alt. 3,058 ft. 1 mile to W. is **Dolnja Crsko**. A track runs W. to this village and thence over the Prostranjska Planina, and down the Sateska valley to **Ochrida**.

38

**Sop** village.

38½

Alt. 3,533 ft. Cross saddle. Several springs. Condition of road appears to deteriorate here. Winding descent between the slopes of the Prostranjska Planina and the Kruška Planina into the Velika valley.

39¾

**Sheitan Kula** (block-house), alt. 3,146 ft.

42¼

Alt. 2,359 ft.

44¼

**Starovec**, alt. 1,896 ft.

45

**Karbunica**, W. of road.

47

Cross two arms of the **Kopač**, tributary of Velika, close to its junction with that river.

49

**Krčova**, alt. 1,992 ft.

(Route from Prilip, E., to Dibra, W., crosses present route here. See Route 73 at mile 41.)

Leaving Krčova the road proceeds N. up the valley of the **Zajaska** affluent of the Velika and closely follows the r. bank.

50½

Alt. 2,040 ft.

51

**Trapčindol**.

51½

**Seansko**. Water-mills near here. Valley narrows considerably here.

54

Cross **Zajaska** stream and ascend to cross Buksić range.

57

**Bukovčan** village 1¼ miles E. of road.

59¼

Summit, 3,884 ft. Road now descends towards valley of the **Padališta**, affluent of the Vardar.

61¼

Alt. 3,539 ft. Old horse-track descends with zigzags to valley: village of Padališta ½ mile across valley.

miles

An alternative track appears to branch l., keeping high, but crossing ravines, for  $3\frac{3}{4}$  miles, and descending at  $4\frac{1}{4}$  miles to Padališta stream. **Gjonovica** village  $2\frac{1}{2}$  miles along this track.

Track now proceeds down narrow valley of the Padališta with high mountains on each side.

62 $\frac{1}{2}$  **Han Padališta**, alt. 2,257 ft.  $4\frac{3}{4}$  hrs. from Krčova.  
Road follows r. bank of stream.

An alternative hilly track runs across the spurs bounding valley on E., passing **Srbino**, 2 miles, **Zelesno Rečane**,  $2\frac{3}{4}$  miles, **Strajan**,  $3\frac{1}{4}$  miles, **Trnovo**, 4 miles, and **Kunova**,  $5\frac{1}{2}$  miles, and reaching **Turčane**, below, at  $7\frac{1}{2}$  miles.

63 $\frac{3}{4}$  Alt. 2,047 ft.

65 Junction with alternative track mentioned at mile  $61\frac{1}{4}$  above.

68 Alt. 1,749 ft. Village of **Lukovica** W. of this point across stream.

70 Alt. 1,667 ft.

70 $\frac{1}{2}$  **Turčane**, alt. 1,768 ft.

71 $\frac{1}{2}$  Cross **Padališta** and **Vardar** close to their junction.

72 $\frac{1}{2}$  **Gostivar** (Kostovo), alt. 1,703 ft.  $3\frac{1}{8}$  hrs from Padališta.

Proceed N. by E., following l. side of Vardar Valley, usually at a distance of  $1\frac{1}{4}$ –2 miles from the river, over the **Tetovo Polje**, crossing some 12 tributary streams before reaching Tetovo.

An alternative track leads along the foot of the hills W. some 2 miles distant, passing through numerous villages.

75 $\frac{1}{2}$  **Tumčevista**.

81 $\frac{3}{4}$  **Zerovjane**.

miles	
88	<b>Tetovo</b> (Kalkandelen), alt. 1,430 ft. 3 hrs. by carriage from Gostivar. Road turns E.
91½	Alt. 1,385 ft. Cross <b>Vardar</b> , ascend, cross a low divide, and descend by a tributary of the Treska, which is a tributary of the Vardar, cutting off a great northward bend made by the Vardar.
95	<b>Grupšin</b> , l.
95½	Alt. 1,621 ft. Descend.
98	<b>Han Bojane</b> . Road now runs close to l. bank of a tributary of the Treska. The valley is narrow, and ¾ miles N. of the road a summit of the Seden rises to 4,127 ft.
102	<b>Han Seminište</b> .
106	Alt. 879 ft. Cross <b>Vardar</b> , flowing E., by a bridge.
107¾	Cross railway.
109	Cross the <b>Lepenac</b> by a bridge near its junction with the Vardar.
112	<b>Ūsküb</b> (Skoplje), alt. 951 ft. 5¼ hrs. by carriage from Tetovo.

## ROUTE 70

KRČOVA—KRUŠEVO, 29¼ miles

This is a horse-track which leaves the Monastir-Krčova-Gostivar chaussée at 36 miles from Monastir, and 13 miles SE. of Krčova, and runs N. of the **Cerska**, an affluent of the Crna.

miles	
0	<b>Krčova</b> . (See Route 69, miles 49-36.)
13	Branch l. (E.) from Krčova-Monastir road.
14¼	<b>Cer</b> village.
18	Military post of <b>Kruška</b> at head of valley. Cross divide and descend into and follow valley of <b>Žaja</b> stream.

miles

20½ **Pustareka**,  $\frac{1}{2}$  mile N., situated on a spur of the **Baba Planina**, which reaches a height of 5,426 ft. 2 miles NE. of village.

23 **Gornji Divjak**,  $\frac{1}{4}$  mile NE.

Hence a track leads S. down the valley of the **Žaja** to the **Crna** river. The track passes **Rastovice** (3 miles), **Rakitnice** ( $4\frac{1}{4}$  miles), and **Novoselo** ( $5\frac{1}{2}$  miles), and at  $7\frac{1}{2}$  miles branches l. (E.) to **Pribilci**, and r. (W.) to join Monastir—Krčova road (Route 69 at mile  $22\frac{1}{4}$ ).

Route leaves the **Žaja** and crosses a low spur into a tributary valley, at the head of which it crosses a col between **Baba Planina** and **Dragišec** mountains.

24½ **Dolnji Divjak**.

25 **Rilevo**,  $\frac{1}{2}$  mile NW.

26 **Harilovo**,  $\frac{1}{2}$  mile NW.

28 Military post on summit of col. Track now bends sharply S. to—

29½ **Krusevo**.

## ROUTE 71

MONASTIR—PRILIP, 26 miles

This is a very fair metalled chaussée, 16–20 ft. wide, reported fit for motor transport at all seasons, though it crosses marshes for  $1\frac{1}{2}$ –2 miles. Time 2– $2\frac{1}{2}$  hrs. by motor, 5 hrs. by carriage.

miles

0 **Monastir**. Road leaves town by the church of Sveti Nedela and proceeds N. and NNE. over undulating country.

$3\frac{3}{4}$  Road to **Krčova** and **Gostivar** (see Route 69) branches l. and NW.

miles	
6 $\frac{1}{4}$	Bridge over Šemnica river.
8	<b>Zekerja Petilap Han.</b> Road here bends NE. and proceeds in almost a straight line to Prilip, traversing gently undulating and open country, except where crossing the valleys of the Crna and Beravista, where for short distances it traverses slightly marshy country, over which it is carried on an embankment.
10	Road crosses small stream on embankment.
14	Road crosses <b>Crna</b> , alt. 1,962 ft. ; embankment on either side of bridge. On a track running parallel to the road on its E. side, at an average distance of 3 miles, but converging at Prilip, are a number of wells.
20 $\frac{1}{4}$	Road crosses small stream. Ground swampy.
22 $\frac{3}{4}$	Road crosses <b>Beravista</b> river. Ground swampy and road carried on embankment.
23 $\frac{1}{2}$	<b>Kamberova Česma</b> (well).
26	<b>Prilip.</b>

## ROUTE 72

## PRILIP—KRUŠEVO, 18 miles

From Prilip to Krivogaštani this route is a carriage road ; from there to Kruševo it is a mule-track (March 1916).

miles	
0	<b>Prilip</b> (Perlepe), alt. 1,985 ft. Road leaves town in a westerly direction over open and gently undulating country.
2 $\frac{1}{2}$	<b>Gjurov Bunar</b> (spring), alt. 2,060 ft.
4	<b>Mali Konjari.</b>
5	<b>Veliki Konjari</b> , alt. 2,021 ft.
8 $\frac{1}{4}$	<b>Vrbjani</b> , alt. 2,004 ft.
9	Bridge over <b>Blato</b> river.



miles	
10 $\frac{1}{4}$	<b>Krivogaštani</b> , alt. 2,001 ft. Road bends NW. leading up to <b>Kruševo</b> .
13	Cross small stream. From here road rises very rapidly by a series of steep zigzags to—
18	<b>Kruševo</b> , alt. 3,858 ft.

## ROUTE 73

PRILIP—KRČOVA—DIBRA, 67 miles

This road, though rough, is passable for wheeled traffic as far as Krčova. The continuation to Dibra is by a difficult mountain track, entailing many steep ascents and descents, which is nevertheless much used by pack transport. It is not passable for wheeled traffic.

miles	
0	<b>Prilip</b> , alt. 1,985 ft. Leave the town in a NW. direction, and ascend a steep spur which rises above the plain.
1	<b>Varoš</b> , alt. 2,677 ft. Descend from the spur, and proceed across the northward extension of the Monastir plain as far as Ropotovo (below).
2 $\frac{3}{4}$	Cross a stream. Alt. 2,185 ft.
3 $\frac{3}{4}$	<b>Mazujčište</b> . Turn W.
4 $\frac{3}{4}$	Alt. 2,103 ft. Road resumes general NW. direction. A number of watercourses are crossed by bridges.
6 $\frac{1}{2}$	Cross river <b>Treska</b> .
7 $\frac{1}{4}$	Alt. 2,067 ft.
10	<b>Sarandinovo</b> , alt. 2,070 ft.
11	Cross river <b>Blato</b> .
13	<b>Ropotovo</b> , alt. 2,057 ft.
16 $\frac{1}{2}$	<b>Debrište</b> , about $\frac{1}{4}$ mile W. of road, across a stream. Alt. 2,129 ft. The road now generally ascends to—

miles

- 20      **Barbarec** Pass, 2,950 ft., between the Buševa Planina on the SW. and the Poropolje Planina on the NE. Branch track E. to **Krapa**, 2 miles.
- 20 $\frac{1}{2}$       **Barbarec**, military post. Descend W. with many zigzags to the Velika valley.
- 25 $\frac{1}{2}$       Cross the **Velika**. Alt. 1,765 ft. From here **Brod** is  $\frac{1}{2}$  mile N. The valley is narrow and flanked by high mountains. From Brod a track northward, probably by Monastirec and Badiška, appears to have been used by troops in 1912.
- 28      **Rusjaci**, and, across the river, **Ladova**.
- 32 $\frac{1}{4}$       **Han Ižica**, alt. 1,903 ft. Ižica village 1 $\frac{1}{2}$  mile N., reached by a track through Miokazi.
- 34 $\frac{1}{4}$       **Miokazi** and **Lisičani** to N. and S. respectively.
- 35 $\frac{1}{2}$       **Celopec**, alt. 1,890 ft. Road turns NW., following the river, the valley of which is now broader.
- 36 $\frac{3}{4}$       **Bigor Dolenci**, alt. 1,926 ft.
- 41      **Krčova** (Kirchevo), alt. 1,992 ft., on the Velika. Here the route is crossed by the Monastir-Gostivar road (see Route 69 at mile 49). The track to Dibra leads W. from the town, and ascends the **Ibrova**, a tributary of the Velika.
- 43 $\frac{3}{4}$       A branch track, leading S. of the Ibrova, passes through the villages of **Ivančišta** and **Jalovec**, and rejoins the main track at mile 55 $\frac{1}{4}$ .
- 44 $\frac{3}{4}$       **Drugovo**.
- 51      **Izvor**.  $\frac{1}{2}$  mile SW., on the Ibrova, is **Klenovec**.
- 55 $\frac{1}{4}$       Branch track from **Jalovec** (2 miles), &c. (see mile 43 $\frac{3}{4}$ , above), rejoins. Main track ascends steeply over the **Jama Bistra** range (5,100 ft.).
- 56 $\frac{1}{4}$       Summit, 4,430 ft. Descend steeply to the valley of the **Proni Gajrese**, a tributary of the Mala.
- 59 $\frac{1}{2}$       **Osoj**,  $\frac{1}{2}$  mile S.
- 60 $\frac{1}{4}$       **Mogorče**,  $\frac{1}{2}$  mile S. Follow the **Mala** down to its confluence with the **Radika**, and follow that river SSW. down its l. bank.

miles

- 66 Turn NW., cross the Radika by a bridge (alt. 1,729 ft.), and ascend to—
- 67 **Dibra**, alt. 2,100 ft. From Dibra there are routes S. to Struga (28 miles), NE. to Gostivar (37 miles), NNW. by horse-track to Prizrend (72 miles), and SW. by horse-tracks to Elbasan, Tirana, &c.

## ROUTE 74

PRILIP—VELES, 34 $\frac{1}{4}$  miles

This is a good route, but with steep slopes and sharp turnings. It has been damaged to some extent, but was being repaired in October 1915, and is reported (1916) to be 16–20 ft. wide and fit for all arms.

miles

- 0 **Prilip** (Perlepe), alt. 1,985 ft. Road leaves town in a NE. direction skirting r. bank of stream which runs through Prilip and is a tributary of the Blato. Road mounts to cross divide between this stream and the Babuna.
- 3 $\frac{3}{4}$  Branch road to **Pestrica**  $\frac{1}{4}$  mile E. of road. A track continues to **Pletvar**, 2 $\frac{1}{2}$  miles, on Kavadar road (see Route 75 at mile 5).
- Branch track through **Pestrica**, **Fariš**, and **Kamen-dol**, joining the Prilip–Ishtib road (Route 75, branch under mile 23 $\frac{3}{4}$  at mile 4 $\frac{1}{4}$ ).
- 7 $\frac{3}{4}$  Summit, 3,445 ft. Military post of **Prisat** (Prisat village is 3 miles W. by a mountainous track). Road descends winding into **Babuna** valley and follows stream of **Desna Babuna** closely, crossing it several times.
- 11 **Abdi Pasha Han**, alt. 1,985 ft.
- 12 $\frac{3}{4}$  Military post.
- 17 $\frac{1}{2}$  **Babuna Han**, alt. 988 ft.

miles

20 $\frac{3}{4}$ **Izvor.**22 $\frac{1}{2}$ **Kote Han.**22 $\frac{3}{4}$ 

Road crosses **Babuna** river a little above its junction with **Desna Babuna**. Ascend hills on opposite side of valley.

23 $\frac{3}{4}$ 

Military post, alt. 669 ft. Village of **Starigrad**  $\frac{1}{2}$  mile WSW.

25 $\frac{1}{2}$ 

Tumulus. Alt. 1,191 ft.

27 $\frac{1}{4}$ 

Summit, 1,286 ft.

29 $\frac{3}{4}$ 

Road crosses river **Topolka**. Alt. 702 ft. Road now follows l. bank of this river.

30 $\frac{3}{4}$ 

**Gornji Čeltiki** village on height above l. bank of river.

31 $\frac{3}{4}$ 

Road crosses small affluent of **Topolka** and then ascends steep hill to about 1,198 ft. Thence descend.

34 $\frac{1}{4}$ 

**Veles** (Köprülü), on Salonica-Üsküb railway. Alt. 558 ft. at river-level. Carriage times—to **Izvor** 3 $\frac{1}{2}$  hrs., to **Prilip** 10 $\frac{1}{2}$  hrs.

## ROUTE 75

PRILIP—KRIVOLAK—ISHTIB, 61 $\frac{1}{2}$  miles

With branch to VINIČANI—GRADSKO.

The road from **Monastir** to **Ishtib**, via **Prilip** and **Krivolak**, is of great military importance as connecting the Monastir plain with the Salonica-Üsküb railway at **Krivolak**, and with **Ishtib**. The route was reported in March 1916 to be good, and practicable for motors at all seasons, but according to another report (February 1916) it was in bad condition between **Prilip** and **Krivolak**, and very difficult in wet weather.

miles

0

**Prilip**, alt. 1,985 ft. Leave town in ENE. direction, skirting NW. spurs of the **Drenska Planina**, to foot of

miles

**Vorila Dagh**, and then ascend the steep slopes of these mountains.

2½ Road crosses **Dolen** bridge (alt. 2,139 ft.) and from here rises steeply with many windings.

5 **Pletvar**, alt. 3,162 ft.

Branch track NW. to **Pestrica** and the Prilip-Veles road (see Route 74 at mile 3¾).

Road here runs through the lofty narrow pass of Pletvar, the village being at the entrance. Very sharp turns.

8 Road (having descended SE. into the valley of the **Rajec** river) crosses by a bridge (alt. 2,112 ft.) and follows r. bank of river eastward.

10½ Alt. 1,634 ft. ¼ mile N. is village of **Trojaci**, alt. 1,739 ft., close to stream.

10¾ Road turns SE. and crosses spur into a tributary valley.

13¾ Cross river **Rajec**. Alt. 1,260 ft. At this point on l. bank is **Toplica Han**, but village of the same name is situated in the hills 2¼ miles WNW. Road now runs almost N., following l. bank of river.

17 Road here turns N. up a tributary valley to avoid western end of defile through which river flows. Cross several spurs and tributaries.

19¼ **Han Fariš**, alt. 1,089 ft.

21 1¼ miles S. is village of **Rajec**.

23¾ Alt. 630 ft. Road crosses **Rajec** river and now follows r. bank.

Branch road l. and generally NE. to **Viničani-Gradsko** station on Salonica-Üsküb railway, 12½ miles, for the most part following the **Crna** river, at an average distance of ¾ mile from bank. This is a metalled road, and is being improved and made fit for all arms.



miles	miles from junction	
	4 $\frac{1}{4}$	Side track to village of <b>Kamendol</b> in tributary valley $\frac{3}{4}$ mile W. It continues W. through <b>Fariš</b> and <b>Pestrica</b> to join Prilip-Veles road (Route 74 at mile 3 $\frac{3}{4}$ ).
	8 $\frac{1}{4}$	<b>Rosoman</b> village. Road leaves Crna river and crosses a low spur to the <b>Vardar</b> . Salonica-Üsküb railway approaches road on E. about $\frac{3}{4}$ mile E. Road now follows railway closely.
	12	Side track crossing railway to village of <b>Gradsko</b> on r. bank of Vardar.
	12 $\frac{3}{4}$	<b>Viničani-Gradsko</b> station.
23 $\frac{3}{4}$		<b>Han Drenovo</b> , alt. 630 ft. Village of same name $\frac{1}{2}$ mile S. Road turns ENE.
26		<b>Vojarci</b> , village on r. bank of Crna. Cross the <b>Crna</b> by a stone bridge. Road now proceeds E. through hilly country.
31 $\frac{3}{4}$		<b>Kavadar</b> (Tikveš), alt. 820 ft. This is the centre of the hilly district of Tikveš. Road now turns N., following valley of Velica tributary of Vardar.
33		<b>Glišič</b> .
33 $\frac{1}{2}$		<b>Marena</b> , alt. 722 ft. Road now turns NE.
34 $\frac{1}{2}$		<b>Sopot</b> . Cross low divide, 860 ft.
36 $\frac{1}{4}$		Road turns SE.
38 $\frac{1}{4}$		<b>Negotin</b> , alt. 489 ft. Road now turns N. and leads down-stream to the Vardar valley.
38 $\frac{3}{4}$		$\frac{1}{4}$ mile E. are the Salonica-Üsküb railway and the river Vardar. Road follows these at a short distance.
41 $\frac{1}{4}$		<b>Krivolak</b> station, alt. 397 ft., on bank of Vardar. Krivolak village and ferry over Vardar here. On leaving Krivolak road goes N.
42 $\frac{1}{2}$		Road crosses Salonica-Üsküb railway and immediately afterwards crosses the Vardar. Military

miles

- post  $\frac{1}{2}$  mile E. of bridge. After leaving bridge road proceeds in a northerly direction over hilly country.
- 46 $\frac{1}{2}$      **Karahojali.**
- 48     **Karaula Šoba.** Road turns NW. and keeps along the top of the **Časke** hills. Summits about 1,840 ft.
- 48 $\frac{1}{4}$      Branch track leads 2 $\frac{1}{2}$  miles N. to brown coal mines, and rejoins route at mile 57 $\frac{1}{4}$ .
- 52 $\frac{3}{4}$      Road bends NE. and descends winding towards valley of **Bregalnica** river.
- 57 $\frac{3}{4}$      Cross **Kriva Lakavica** tributary. Road follows l. bank of Bregalnica.
- 59 $\frac{3}{4}$      **Ribnik.**
- 61     **Novoselo.**
- 61 $\frac{1}{2}$      **Ishtib** (Štip, Shtiplie), alt. 896 ft.

## ROUTE 76

SALONICA—KARASULI—DOIRAN, 61 $\frac{1}{2}$  miles

This route follows the Salonica-Monastir chaussée to a point 1 $\frac{3}{4}$  miles beyond the Vardar bridge. It is reported thereafter to be fit for wheeled traffic as far as the ferry at Karasuli. The section Karasuli-Doiran is a chaussée, which was once in good condition, but is reported to be now fit for light vehicles only (1916).

miles

- 0     **Salonica.** The first 18 $\frac{1}{2}$  miles of the route are described in Route 65.
- 18 $\frac{1}{2}$      From this point, 1 $\frac{3}{4}$  mile W. of the bridge over the **Vardar**, the road runs in a general NNW. direction over low ground up the r. bank of the Vardar, which is 2–3 miles distant.
- 21 $\frac{1}{2}$      **Kushbali.**
- 22 $\frac{3}{4}$      **Hidirli.** Road crosses two tributaries of Vardar.

miles

24½ **Bozech**, alt. 167 ft. Road turns N. by W.28½ **Petrovo**.29½ **Babaköi-Vardar**, alt. 105 ft. Alternative track NNW. to **Ishiklar** (2 miles) and **Tumba** (4 miles), where it rejoins main route at 33½ miles.33½ **Tumba**.

Road crosses several tributary streams (one bridge: alt. 49 ft.), and turns N. by E.

36¾ Branch road fit for carriages SE. to **Gümenje**.38½ **Bohemitsa**.

Branch track NW. to **Majadag** (8 miles), continued E. by a road practicable for two-wheeled vehicles to **Slop** (11¼ miles), and then N. to **Gevgeli** (15¼ miles).

Road turns E. to bank of Vardar, and crosses by ferry.

39½ **Karasuli**. From here a road practicable for carriages runs N. *via* **Oreovista** to **Machukovo** (8½ miles).

40 Road passes under Salonica-Üsküb railway immediately N. of Karasuli station, then turns NNE., following the Karasuli-Kilindir railway closely, along the marshy shore of the Arjan Göl.

43 Road crosses railway, alt. 105 ft.

44 Recross railway.

46½ Alt. 95 ft.

48½ Road crosses spur of hills to N.

50 Alt. 285 ft. Road bends SE., then NE. again.

55 Alt. 394 ft. Road enters main Salonica-Doiran road *via* Avret Hisar. (See Route 77 at mile 38½.)61½ **Doiran**.

## ROUTE 77

SALONICA—DOIRAN—STRUMITSA, 69 $\frac{1}{2}$  miles

With branches to and from GEVGELI.

This route passes through Avret Hisar and Doiran. It traverses easy country, and, according to information, October 1915, is now a good route fit for motor transport.

miles

0      **Salonica.** Leaving by W. gate of the town, either the Monastir chaussée can be followed to the **Galiko** bridge, or a more direct track taken along the foothills towards **Gradobor**. The first and better route is here followed. (For first 6 $\frac{3}{4}$  miles see Route 65.)

6 $\frac{3}{4}$       **Galiko** bridge, 1 $\frac{1}{2}$  hr. from **Salonica**. Immediately after crossing river **Galiko** the route strikes N. and runs near r. bank of that river. The **Galiko** rises in the Krusa Balkan ridge and flows S., fed by small streams running approximately E. and W., and said to be always fordable. The **Galiko** has a wide shingly bed, and is subject to violent freshets : in spring it is unfordable in its lower course, but it is said to be always fordable above **Karaja Kadi**, about 3 miles NE. of **Salamanli** (see under mile 13 below).

The country W. of the **Galiko**, over which route now passes, is open and undulating, and of clay, which bakes hard in dry weather, but becomes very soft after rain. There are steep-sided water-courses as much as 30 ft. deep, which may necessitate search for a crossing. Tracks in this district are unmetalled and only fit for light wheeled vehicles.

8      **Shamli.**

11 $\frac{1}{4}$       The direct track from **Salonica**, mentioned above, joins the present road. Road now enters on upland country, which it traverses as far as the **Zhensko** valley.

miles

13

Road to Kukush branches r. and NE. It is in bad repair, but fit for wheeled traffic. It runs as follows:—

miles

 $3\frac{3}{4}$ 

Road passes close E. of Tuzulu or Aji lake.

5

**Yaijilar** village.  $2\frac{1}{2}$  miles E. of this runs the Salonica–Doiran railway, and there is a station on it near the village of **Salamanli**, alt. 285 ft. Road now leaves vicinity of river.

 $6\frac{1}{4}$ 

**Karabunar**. A track branches off NW. to monastery, 1 mile S. of Avret Hisar. Road now continues in a great curve of  $6\frac{3}{4}$  miles, and strikes the railway again at—

13

**Sarigöl** station, alt. 676 ft. From here road leads NE.

 $14\frac{1}{4}$ 

**Kukush**.  $\frac{1}{2}$  mile NW. of Kukush village is **Sveti Georgi** monastery, alt. 1,165 ft. The village is a centre of several tracks (see Route 150 at mile  $30\frac{1}{2}$ ).

 $17\frac{1}{2}$ 

**Ali Hojalar**.

20

**Vakuf** farm; road descends into valley of the Zhensko.

26

**Avret Hisar** (Zhensko), alt. 322 ft., situated in broad valley of the Zhensko, which drains into Lake Amatovo after a course of about  $8\frac{3}{4}$  miles SW. Track branches r. and NE. to **Kukush**,  $5\frac{1}{2}$  miles.

From Avret Hisar road ascends, and then descends to—

 $29\frac{1}{4}$ 

**Haidarli** village, and thence into the basin of the Ayak river.

 $31\frac{3}{4}$ 

**Gerbashel** village.

 $34\frac{1}{4}$ 

Road crosses **Buyuk Dere**, an affluent of the Ayak, and follows valley of the Ayak in a northerly direction.

 $37\frac{1}{4}$ 

**Hirsova** village.  $\frac{1}{4}$  mile to E. is railway, which road



miles

now follows closely along valley of Ayak. Here route via **Kukush** rejoins (see under mile 13, above).

38 Road crosses branch line running SW. from Kilindir (below) to Karasuli on the Üsküb railway.

38½ Road from Karasuli (see Route 76 at mile 55) comes in from SW.

38¾ **Kilindir** railway station ( $\frac{1}{2}$  mile E.), and village ( $\frac{1}{4}$  mile N.).

43 Alt. 741 ft.

43¼ Cross frontier from Greece into Serbia.

43½ S. shore of **Doiran** lake, and branch road r. and E. to **Doiran** station,  $1\frac{1}{4}$  miles, and thence to Demir Hisar (see Route 95). Alt. 492 ft. Main road runs NW. along W. shore of **Doiran** lake.

A rough track leads l. and W. to Gevgeli :—

miles

2 Cross frontier into Greek territory.

7 Recross into Serbia.

7½ **Selimli**.

10½ **Bogorodica**. Path here strikes NW.

12 Bridge and ferry over **Vardar**. Path then strikes SW.

12½ **Gevgeli** railway station.

13 **Gevgeli**. The last  $1\frac{1}{4}$  mile is a good chaussée.

45 **Doiran** (Polyanis).

On leaving Doiran, the Strumitsa road closely follows W. shore of Doiran lake. Parallel track at higher level.

47¾ Turning WNW. and leaving lake, road now leads over rough and hilly country.

50¼ **Göksheli** village, N. Road now descends across swampy ground.

53½ Spring. Hereabouts tracks from Gevgeli, Mirovča station, and Smokvica join.

miles

The track from Gevgeli is reported (March 1916) as under repair, and in process of enlargement to a width of 20 ft. It runs as follows :—

miles

0	<b>Gevgeli.</b> Route leads NE.
1	Bridge over <b>Vardar</b> river.
2 $\frac{1}{2}$	Cross a tributary of the Vardar. Route goes NNE. for 1 $\frac{1}{2}$ miles ; then NE.
4 $\frac{1}{2}$	<b>Bogdanci.</b> Route enters hilly country.
8	<b>Furka.</b>
10 $\frac{3}{4}$	Join main route (as above).

Route leads NNW., following deeply trenched valley of stream running northwards into the **Boyimia**, a tributary of Vardar.

55 Branch track (under repair as continuation of route from Gevgeli ; see above under mile 53 $\frac{1}{2}$ ) NW. to **Valandova**, 3 $\frac{1}{2}$  miles, crossing the Boyimia at 1 $\frac{1}{4}$  miles.

56 Cross river **Boyimia** and continue N. up opposite flank of valley.

57 $\frac{1}{2}$  **Rabrovo**, alt. 436 ft. This village is situated at the foot of the range separating the Salonica plain from the Strumitsa valley.

From Rabrovo a road leads W. to **Mirovča** station on the Salonica—Üsküb railway, 7 $\frac{3}{4}$  miles. Ferry over Vardar here. 5 miles along same road there is a branch road r. to **Strumitsa** station, 3 miles from the bifurcation.

The road now makes a détour about  $\frac{1}{2}$  mile E. of Rabrovo, then turns NNW., ascending a spur of the **Plaush Planina**, crosses head-waters of a tributary of the Boyimia, and ascends, turning from NE. to NNE.

61 $\frac{1}{2}$  Col (about 1,350 ft.) dividing basin of the Vardar

miles

from that of the Struma. **Kosturino** village,  $\frac{1}{4}$  mile E. of road.

Cross frontier from Serbia into Bulgaria.

The road now descends N. on the r. side of the Trekanya ravine, and crosses several streams NW.

66 $\frac{1}{2}$ 

**Popchevo.**

Road climbs outlying spur of Belashitsa Planina.

67 $\frac{3}{4}$ 

Alt. 1,611 ft. Road descends with windings to—

69 $\frac{1}{2}$ 

**Strumitsa.** Railway station (see under mile 57 $\frac{1}{2}$ , above) is 20 miles distant by a fair cart-road. Vineyards. Surrounding country well cultivated.

*Alternative routes from Doiran to Strumitsa valley.*

The only alternative routes through the Belashitsa mountains from the S. are steep and stony tracks, by which troops can only advance in single file. Nevertheless, in the Greek advance from Doiran in 1913, three divisions used hill-tracks E. of the route described above.

(i) The Vth Division crossed by a track Tatarli (3 miles ESE. of Rabrovo)—Kajali—Ormanli—Kuklish (1 $\frac{1}{2}$  mile E. of Strumitsa).

(ii) The IInd Division crossed by a track Chalkali (4 miles ESE. of Rabrovo)—Dorol Oba (?)—Banjsko (5 miles ESE. of Strumitsa).

(iii) The IVth Division crossed still further E. to Gabrovo (8 miles ESE. of Strumitsa).

The above tracks reach extreme altitudes of 2,750 ft., 3,488 ft., and 4,900 ft. respectively.

## ROUTE 78

## GEVGELI—PETROVO—DEMIR KAPU

It is reported (March 1916) that a good road between Gevgeli and Demir Kapu has been constructed by the invaders, and that a service of supplies will be maintained along it by motor lorries. Route (A), below, is the old track-route, but the new road probably follows more nearly the line of Route (B).

miles	ROUTE (A)
0	From <b>Gevgeli</b> , which has a station on the Salonica-Üsküb railway, and is connected by a rough track with Doiran (see Route 77 under mile $43\frac{1}{2}$ ), the route runs N. on the l. side of the railway. For route to Strumitsa see Route 77 at mile $53\frac{1}{2}$ .
2	<b>Mrzenci</b> . The route diverges NNW. from Route (B) below, and from the railway.
$3\frac{1}{2}$	<b>Negorci</b> . The route skirts low hills on l. into the Pardovitsa valley.
7	<b>Kovanec</b> . The route continues NW. up the valley.
$8\frac{1}{2}$	<b>Borlova Kulbeleri</b> . The route climbs N. over a ridge into the Petrovska valley.
11	<b>Gabreš</b> . The route crosses the Petrovska and follows it NNW.
$12\frac{1}{2}$	<b>Petrovo</b> . The route now follows up the l. bank of the Petrovska in a general WSW. direction.
$17\frac{1}{2}$	The route turns NNW. and climbs the ridge of the <b>Marianska Planina</b> .
20	Highest point on route, about 2,500 ft.
$20\frac{1}{2}$	Close by the source of a stream flowing N., route bifurcates. Most direct branch follows stream N., and descends.
	Alternative branch descends WNW. to <b>Koprišnica</b> , then turns NNE. down the valley of the Drenska, a

miles

tributary of the Bošava, and rejoins direct route at Čiftlik Dren (6 miles).

Alternative route from Koprišnica crosses the Drenska NNW. to **Gornji Drahovica** (2 miles), then turns NNE., and rejoins the main route just beyond the bridge at Orizar (4 miles).

25      **Čiftlik Dren.**

26½      **Orizar.** Route turns W. and crosses Bošava by bridge.

27      Route turns NNE., and follows l. bank of Bošava.

30      **Demir Kapu** station on Salonica-Üsküb railway.

### ROUTE (B)

For general description see introductory note. It has been reported that part of this route between Gevgeli and Davidovo is practicable for artillery. This route follows the west bank of the Vardar more or less closely the whole way.

miles

0      **Gevgeli.**

2      **Mrzenci.** Route (A) above branches NNW.

3      **Banja.**

5      **Pardovica.** A military road runs from here SW. to Gurinčet via Negorci.

8¼      **Smokvica.**

10¾      **Miletkova.**

13      **Mirovča.**

14      **Mirovča** station, E. of road.

14¾      **Davidovo.**

A third-class road, winding and steep, ascends NE. from **Kalkova** (3 miles; alt. 354 ft.), ascends to Davidovo to alt. 2,473 ft. (7 miles), and continues as a track to **ChePELLI** (8 miles), reaching **Popchevo** in 11¼ miles, where it joins Route 77 at mile 66½.

Another track runs NE. from Davidovo up a small valley to **Barakli** (5 miles), climbs N. to crest of ridge



miles

and frontier at alt. 2,461 ft. ( $7\frac{1}{2}$  miles), and descends NE. to **Rich**, alt. 1,660 ft. (10 miles), whence track down Vodovcha valley SE. by **Blato** (alt. 1,204 ft. at  $11\frac{3}{4}$  miles) to **Popchevo** ( $13\frac{3}{4}$  miles).

There is a parallel track along ridge on W. of Barakli valley giving alternative route to **Rich** ( $12\frac{1}{2}$  miles).

22

Alt. about 300 ft.

26

**Demir Kapu.**

## ROUTE 79

### STRUMITSA—ISHTIB, 39 miles

This route is reported fit for wheeled traffic, and a regular automobile service is maintained along it (March 1916). The most difficult part of the road is at the crossing of the watershed between the Struma and the Vardar rivers, where there are spurs from the **Plačkovica Planina** on the north and other hills on the south.

miles

0

**Strumitsa.** The route goes in a northerly direction for 8 miles and then bends NW., following the **Stara** river. This river here runs between the **Gradec Planina** on the S. (highest point 3,130 ft.) and the **Plačkovica Planina** on the N. (highest point 4,429 ft.). There are two or more tracks as far as **Radovišta**, and there is no evidence to determine which of them is the best. One, keeping to the hills, on which most of the villages are situated, is given as an alternative under mile 2 below. The route given as the main route keeps to the valley.

1

Cross **Vodovcha** tributary of the Strumitsa river by a bridge.

2

Alternative (hill) track to **Radovišta** branches l. and N. It is said to be very difficult for carts.

miles	miles from junction	
	1	<b>Angeltsi.</b> Track crosses numerous low spurs and tributaries of the Stara. The villages are usually situated on the banks of the streams.
	3 $\frac{1}{4}$	<b>Edrenik.</b>
	5	<b>Vladovtsi.</b>
	5 $\frac{1}{2}$	Cross frontier from Bulgaria into Serbia.
	6 $\frac{1}{2}$	<b>Radičevo.</b> Track bends NW. and is about $\frac{1}{2}$ mile distant from main route.
	7 $\frac{3}{4}$	<b>Dukatino.</b>
	9 $\frac{3}{4}$	<b>KalugERICA.</b>
	12	<b>Surdol.</b>
	13 $\frac{3}{4}$	<b>Vojslavci.</b>
	15 $\frac{1}{4}$	Track turns N. by E. A branch track continues W. through <b>Inova</b> (1 mile) and <b>Damjan</b> (3 $\frac{3}{4}$ miles) to join main route at mile 26 $\frac{3}{4}$ below.
	16 $\frac{1}{2}$	Cross the <b>Stara.</b>
	18 $\frac{1}{4}$	Enter <b>Radovišta</b> from the S.
23 $\frac{3}{4}$		<b>Gradoshor.</b>
6 $\frac{1}{4}$		Road approaches r. bank of <b>Stara</b> river, and leaves the Strumitsa plain.
8		Cross frontier from Bulgaria into Serbia, at S. end of a defile through which the Stara flows.
15		Turn N. to cross the <b>Stara</b> , and follow r. bank of the <b>Radovišta</b> NW. A track continues W. to rejoin the present route at 26 $\frac{3}{4}$ miles, below.
18 $\frac{1}{2}$		<b>Radovišta</b> , alt. 1,266 ft. Road then proceeds W. up valley.
25		<b>Topolnica</b> , ? N. of track. Near this village a direct but very difficult track for carts from <b>Strumitsa</b> via <b>Damjan</b> joins the present route. Chaussée is said to stop at or near this point, a good field track, passable for wheels, taking its place. Descend gently to headwaters of <b>Maden</b> river.

miles

A track branches r., 1 mile, to **Topolnica** and continues to **Ishtib**.

26 $\frac{3}{4}$ 

Three tracks meet : see mile 15, and mile 15 $\frac{1}{4}$  of alternative track, above.

29 $\frac{1}{4}$ 

Cross the **Pilavtepe** hills, alt. 2,165 ft.

30 $\frac{3}{4}$ 

Road crosses the **Drin**, affluent of the Kriva Lakavica. Alt. 1,581 ft. Ascend tributary valley NW.

32 $\frac{1}{4}$ 

Springs. Alt. 2,139 ft. Road keeps along ridge.

34 $\frac{3}{4}$ 

**Lipovdol** village,  $\frac{1}{2}$  mile N. of road, in **Olina** valley. Alt. of road, which is here on ridge above the valley, 2,204 ft. Road now descends NW. towards Ishtib.

36 $\frac{3}{4}$ 

**Strupica** spring. Road continues to descend rapidly.

39

**Ishtib**, alt. 951 ft.

## ROUTE 80

ISHTIB—VELES, 21 miles

Good route, reported fit for motor transport (1916).

miles

0

**Ishtib**. Road runs NW. to Hadirfakli for 7 $\frac{1}{4}$  miles over the **Ezevo Polje**.

 $\frac{1}{2}$ 

Cross river **Bregalnica**.

1 $\frac{1}{4}$ 

Ishtib—Juma'-i-Bala road (Route 89) turns N. by E. Route continues NW.

3 $\frac{1}{4}$ 

Branch track r. to **Erdželi** (Route 83 at mile 8 $\frac{1}{4}$ ).

4 $\frac{1}{4}$ 

**Krividol**.

7 $\frac{1}{4}$ 

**Hadirfakli** village and military station, alt. 879 ft. Kumanovo road (Route 83) branches N. Road goes WSW. to Veles.

9 $\frac{3}{4}$ 

Bridge crosses river **Azmak** or **Orla**. Alt. 846 ft. Country to S. marshy.

12

**Sari Hamzali**, alt. 879 ft.

13 $\frac{3}{4}$ 

Road ascends to 1,132 ft., and descends to—

miles	
14	Cross stream and reach <b>Karadžali</b> .
15½	Branch track r. from <b>Kliseli</b> , 8½ miles (Route 83 at mile 12¾).
16½	Well on S. side.
18½	Summit of a spur, 1,286 ft.
20	Main road from <b>Ūsküb</b> (Route 81) comes in r.
21	<b>Veles</b> (Köprülü), alt. 558 ft.

## ROUTE 81

VELES—ŪSKÜB, 37¼ miles

Good route, 16-20 ft. wide, practicable for motors  
at all seasons (March 1916).

miles	
0	<b>Veles</b> (Köprülü), alt. 558 ft. Road goes NNW. to <b>Ūsküb</b> , ascending a spur of the <b>Ak Yokush</b> hills, and for the first half of its course keeping away from (E. of) the narrow <b>Vardar</b> valley.
1	Road to <b>Ishtib</b> (see Route 80) diverges r. and NE. Present road crosses a spur, and descends to—
5	<b>Novočani</b> , crossing small stream flowing into the <b>Vardar</b> . Road again ascends, winding.
10½	<b>Vetersko</b> village to W. Highest point (about 1,575 ft.) between <b>Veles</b> and <b>Ūsküb</b> . Road now descends by zigzags to valley of <b>Pčinja</b> , tributary of the <b>Vardar</b> .
21¾	<b>Kaplan</b> . Bridge over <b>Pčinja</b> ; also military post. Alt. 699 ft. Road now runs NW. over swampy ground for 4 miles, having the lake of <b>Kaplan</b> to W. for about half this distance.
25½	<b>Arženica</b> .
26¾	<b>Ibrahimovce</b> . The road approaches the <b>Vardar</b> and follows it more closely than before over ground occasionally swampy. Branch road to <b>Kumanovo</b> (see Route 82) diverges N.

miles

30 $\frac{1}{2}$ 

**Urumli.**  $\frac{1}{2}$  mile SW. of this the **Vardar** is crossed by a bridge. Road continues over marshy ground for 3 miles.

33 $\frac{1}{2}$ 

Cross **Üsküb–Nish** railway.

34

**Madžarlik.**

34 $\frac{3}{4}$ 

Main road between **Üsküb** and **Nish** joins present route on r., from NE. (see Route 85 at mile 2 $\frac{1}{2}$ ). Road now goes due W.

37 $\frac{1}{4}$ 

**Üsküb** (Skoplje).

## ROUTE 82

IBRAHIMOVCE—KUMANOVO, 16 $\frac{1}{2}$  miles

From Ibrahimovce at mile 26 $\frac{3}{4}$  on the **Veles–Üsküb** road (Route 81) a branch road leads N. over open country to Kumanovo.

miles

0

**Ibrahimovce.**

3

4

**Kojlice.** Branch road NW. to **Mralino** (1 $\frac{1}{4}$  miles) through marshy ground; **Kadinosele** (2 miles); crosses **Üsküb–Belgrade** railway (5 miles); **Haračina** (7 $\frac{1}{2}$  miles). Thence bends sharply W. and (8 miles) joins **Üsküb–Kumanovo** main road (Route 85) at mile 6 $\frac{3}{4}$ .

On leaving **Kojlice** road continues in a northerly direction.

4 $\frac{1}{4}$ 

**Hadžarlar** village. **Hadžarlar** station is  $\frac{1}{2}$  mile NW. of this. Road follows E. side of railway.

6 $\frac{1}{2}$ 

**Tekeköi.**

7

**Deliderlica.**

9 $\frac{1}{2}$ 

**Agaköi.**

13

**Ramanovce**, alt. 1,312 ft.

13 $\frac{3}{4}$ 

Branch road runs NW., passing near **Sarimeše**, and reaches **Üsküb–Kumanovo** main road (2 $\frac{1}{2}$  miles) (see Route 85, at mile 17).

16 $\frac{1}{2}$ 

**Kumanovo.**



## ROUTE 83

ISHTIB—KUMANOVO, 40 $\frac{3}{4}$  miles

This was formerly a track only, but is reported (March 1916) as now probably fit for military traffic at all seasons.

miles

0 **Ishtib.** For the first 7 $\frac{1}{4}$  miles see Route 80.

7 $\frac{1}{4}$  **Hadirfakli.** Road branches r. (N.) from Veles road at military post  $\frac{1}{8}$  mile NW. of this village.

8 $\frac{1}{4}$  **Erdželi**, alt. 909 ft. Track enters r. from Ishtib-Veles route (Route 80 at mile 3 $\frac{1}{4}$ ). Road now takes NW. direction across undulating country, following valley of the Orla.

9 $\frac{3}{4}$  Road crosses tributary of the Orla, which it joins  $\frac{1}{2}$  mile below this point.

12 $\frac{1}{4}$  Road crosses **Orla**.

12 $\frac{3}{4}$  **Kliseli** (Sveti Nikola), alt. 1,020 ft. Branch track SW. to Ishtib-Veles road (Route 80 at mile 15 $\frac{1}{2}$ ).

Road now leads N., closely following r. bank of **Malinovski** river.

15 $\frac{1}{2}$  Junction of **Beriš Deresi**, a l.-bank affluent of the Malinovski. Road now takes a NW. direction, still following the river.

19 $\frac{1}{4}$  Branch track, continuing NW., passes through **Sušica**, and across the **Pčinja**, to **Hadžarlar** on the Ūsküb-Nish railway (see Route 82 at mile 4 $\frac{1}{4}$ ), and follows railway to Ūsküb.

20 $\frac{3}{4}$  Road strikes NNW.

**Alakinci** village and fortified post  $\frac{1}{2}$  mile SE. of this point, in adjacent valley.

A branch road leaves W. and furnishes an alternative route *via* the villages of **Malino** (1 mile), **Živinje** (4 $\frac{3}{4}$  miles), **Kolitsko** (7 miles), and in 8 $\frac{3}{4}$  miles joins main road at mile 28 below.

miles

- Main road continues NW., crossing the **Gradište Planina** at a height of about 2,500 ft.
- 28      Road is joined by alternative road described under mile  $20\frac{3}{4}$ .
- $28\frac{1}{4}$       Well, E. of road. Road now continues in northerly direction, descending into valley of the Orašica.
- $31\frac{1}{4}$       **Orašac** village and military post.
- 32      Road reaches **Orašica** river, an affluent of the Pčinja, and follows it NW.
- $33\frac{1}{4}$       Cross **Pčinja** river. Road then continues NW. over a spur and follows up l. bank of the Golema river.
- $35\frac{1}{2}$        $\frac{1}{2}$  mile W. of this point and on opposite side of river is village of **Dobržane**.
- $38\frac{3}{4}$       **Berakli** village.
- $39\frac{3}{4}$       Cross-roads. Road to Kumanovo turns off W., crossing river **Golema**. To the E. a road leaves by the Kratovska river to Kratovo (Route 87). From this point also a road leads N. to Ūsküb-Gyueshevo road (Route 85, miles  $19\frac{1}{4}$ – $63\frac{3}{4}$ ), just outside the town of Kumanovo.
- $40\frac{3}{4}$       **Kumanovo**.

## ROUTE 84

ISHTIB—STRACIN,  $42\frac{1}{2}$  miles

This road forms a useful line of communication between Ishtib and the Ūsküb-Gyueshevo road (Route 85). The section between the junction with Route 89 and Kratovo is a track only; from Kratovo onwards there is a chaussée fit for wheeled traffic. The bridges are reported to be shaky, but the road otherwise in good order.

miles

- 0      **Ishtib**. For the first  $8\frac{1}{4}$  miles see Route 89 (Ishtib-Juma'-i-Bala).
- $8\frac{1}{4}$       The road diverges in a N. direction from the Ishtib-Juma'-i-Bala road.

miles	
9 $\frac{1}{2}$	<b>Uljarci.</b> Track follows up r. bank of Zletovska.
13 $\frac{1}{4}$	<b>Gujnovci.</b> Track turns NNE. following stream closely throughout.
17 $\frac{1}{4}$	<b>Bučiste,</b> W. of track. A track joins from SE. from Ishtib-Kočana road (see Route 89 under mile 19 $\frac{1}{2}$ ).
19 $\frac{1}{4}$	<b>Ratavica.</b>
22	<b>Zletovo.</b> Track turns NNW. and then N. over hills.
26 $\frac{1}{2}$	<b>Blizanci,</b> alt. about 4,000 ft. Track turns NW. and descends.
30 $\frac{1}{2}$	<b>Kratovo,</b> alt. 2,241 ft.
32	<b>Železnica,</b> alt. 2,064 ft. Road to Kumanovo branches W. (see Route 87 at mile 28).
33 $\frac{3}{4}$	<b>Talašmanci,</b> alt. 2,467 ft.
37	Cross <b>Kriva</b> river.
37 $\frac{1}{2}$	<b>Trnovca.</b>
41 $\frac{1}{2}$	Road enters Ūsküb-Gyueshevo road (see Route 85 at mile 41) 1 mile E. of Stracin.
42 $\frac{1}{2}$	<b>Stracin.</b>

## ROUTE 85

ŪSKÜB—GYUESHEVO, 63 $\frac{3}{4}$  miles

This is part of an important strategical route leading from Ūsküb to Kustendil and thence to the Sofia-Radomir railway, and is the only easy route crossing the long line of difficult frontier hills. The most difficult parts of the route are the defile beyond Egri Palanka and the ascent of the Devebair pass from a point 3 $\frac{3}{4}$  miles on the Serbian side of the Bulgarian frontier.

This chaussée is metalled and in good condition for carriages as far as Stracin, the width of metal varying from 12 to 18 ft. From Stracin to Egri Palanka it is narrower, 10 to 15 ft. of metal, and in a doubtful state of repair. The bridges are usually

of wood with stone or wooden piers. The smaller bridges would have to be strengthened to take heavy mechanical transport. From Egri Palanka to Devebair pass the road follows a defile and in places was formerly only about 12 ft. wide; this section was impassable for wheeled traffic, but is reported to have been made into a chaussée, with a width of 12 to 16 ft. of metal. For the first  $5\frac{1}{2}$  miles the road runs from 20 to 30 ft. above the midsummer level of the river Kriva and rises gradually. Thence to the frontier it ascends the steep mountain slopes by long zigzags and rises about 1,475 ft. before Devebair is reached: heavy wagons and guns probably require to be double-horsed for the ascent. From Devebair to Kustendil there is a fair chaussée which continues to Radomir and Sofia. According to information received in October 1915 this road has been very greatly improved, and in March 1916 was reported fit for motor transport throughout.

miles

- |                 |  |
|-----------------|--|
| 0               | <b>Ūsküb.</b> Leaving the town the road runs NE. and parallel to the Ūsküb-Nish railway.   |
| $2\frac{1}{2}$  | Road to Veles branches r. and SE. (see Route 81 at mile $34\frac{3}{4}$ ). The road now rises gradually to a plateau and traverses undulating and cultivated country.  |
| $4\frac{1}{2}$  | <b>Hasanbegovo.</b>  |
| 5               | Alt. 755 ft. Country marshy.   |
| $6\frac{3}{4}$  | Branch road from <b>Kojlice</b> (Route 82 at mile $\frac{3}{4}$ ).   |
| 7               | <b>Haračina</b> village S. of road.  |
| 8               | Military post.   |
| $8\frac{1}{4}$  | Road bends N. and begins to rise, at first rather steeply.   |
| 10              | <b>Orlanci</b> village W. of road. Hills to W. of this village, 2,461 ft.  |
| 11              | Military post. Road turns sharply NE.  |
| $11\frac{1}{4}$ | Alt. 1,896 ft. Road bends slightly NW., but resumes immediately its north-easterly direction and passes over the <b>Uzundžova</b> plateau. The plateau is open and affords a suitable halting-place half-way to Kumanovo. Water is only available from a few wells |

miles

and a dirty brook. From here to the railway crossing (mile  $17\frac{1}{2}$  below) troops can move anywhere off the road. The road descends to—

14      **Novoselo**, on W. side of road. Spring  $\frac{1}{2}$  mile NE.

17      **Sarimeše**, E. of road. Station  $\frac{1}{4}$  mile N. of road. Alt. 1,280 ft. Branch road from Ibrahimovce—Kumanovo road comes in (see Route 82 at mile  $13\frac{3}{4}$ ).

$17\frac{1}{2}$       Cross railway.

$19\frac{1}{4}$       **Kumanovo**, alt. 1,050 ft.

Route Kumanovo—Vranja—Leskovac, &c., branches N. from here.

Leaving Kumanovo the road runs in a general easterly direction, over undulating cultivated country (**Crno Polje**), skirting spurs of the **Stracina Planina** which command the road on the N. ; later on the road is commanded from the south also.

$25\frac{1}{2}$       **Mlado**.

$25\frac{3}{4}$       Road crosses an affluent of the **Pčinja** river. Spring about  $\frac{1}{2}$  mile SE. of this crossing.

$30\frac{1}{2}$       Road crosses **Pčinja** river by a wooden bridge with stone piers. Beyond the river, **Vojnik** village lies to S. and a military post to N. of the road.

$32\frac{1}{4}$       Road crosses **Makreški** stream. **Makreš** about  $\frac{1}{2}$  mile N. of road.

33      **Oblavci** village S. of road.

$36\frac{3}{4}$       Road crosses **Rušinački** stream. **Rugince-Derbend**  $\frac{1}{2}$  mile N. of road.

39      Inn and military post.

40      **Stracin**. After this the road crosses several streams and enters a country which rapidly becomes more hilly and less cultivated.

41      Branch road r., and SE. to Trnovca, Kratovo, Zletovo, and Ishtib (see Route 84).

$42\frac{1}{4}$       **Vjetrenica** village S. of road.

$44\frac{1}{2}$       Cross **Hrankovački** stream. Road enters broad, open, and fertile valley of the Kriva, which it follows



miles

to **Egri Palanka**. The valley narrows, and its sides become steeper, as one proceeds.

48 $\frac{3}{4}$ **Čifde Han**.49 $\frac{1}{2}$ 

Road crosses **Kriva** river. The river is easily fordable in summer.

49 $\frac{3}{4}$ 

Military post, alt. 1,791 ft.

53

**Martinica** village, S. of road.

55

**Egri Palanka**, alt. 2,238 ft.

For military road from Egri Palanka to Kameniča, see Route 88.

Leaving Egri Palanka the road ascends the Kriva valley at first NE. and then generally E., with steep scrub and forest-clad slopes on both sides.

57 $\frac{1}{2}$ 

Alt. 2,303 ft.

60 $\frac{1}{2}$ 

Begin winding ascent.

62 $\frac{1}{2}$ 

**Žedilovo**. Military post. Summit of **Devebair** pass, 3,904 ft. Cross frontier from Serbia into Bulgaria.

63 $\frac{3}{4}$ 

**Gyueshevo**, alt. about 3,000 ft., S. of road. Terminus of railway from Kustendil and Sofia. For continuation of road from Gyueshevo to Sofia, see Route 86.

## ROUTE 86

GYUESHEVO—SOFIA, 63 $\frac{1}{2}$  miles

This is the continuation, on the Bulgarian side of the frontier, of the Ūsküb—Gyueshevo road (Route 85). It is a chaussée throughout, and affords the main line of communication between Bulgaria and the Vardar valley. It was the scene of much Serbian-Bulgarian fighting in 1913 and 1915. It was along the part of this road from Radomir to Sofia that during the war of 1913 the Bulgarians sent the bulk of their army and artillery.

miles

- 0 **Gyueshevo** village (alt. about 3,000 ft.) is  $1\frac{1}{4}$  miles E. of frontier in the valley of the **Levnitsa**. Station  $\frac{1}{4}$  mile S. of road. At first the general direction of the road is E.
- $\frac{3}{4}$  Railway crosses road running N. down the **Levnitsa** valley. The road ascends, crossing the N. slopes of a hill which rises to the S., and then descends.
- $1\frac{3}{4}$  Road turns ENE. across undulating country. The **Osogovska Planina** rises to the S. Various streams are crossed.
- 5 The road enters more mountainous country, and after crossing a ridge begins to descend.
- 6 Alt. 2,896 ft.
- $9\frac{1}{4}$  Alt. 2,112 ft. The country is well wooded about here.
- $11\frac{3}{4}$  **Kustendil**. The **Dupnitsa** road branches E. by S. at the E. end of the town. (See Route 112.)
- Branch road NNW. to **Sovolyano** ( $3\frac{1}{2}$  miles), **Yam-borano** ( $6\frac{3}{4}$  miles), and **Goranovtsi** ( $8\frac{1}{2}$  miles).
- Along the section of road between this place and **Radomir** are numerous springs of excellent water.
- Route turns NE. and proceeds through wooded country.
- 16 Cross **Struma** at outlet of **Struma** gorge. Alt. 1,526 ft.
- $17\frac{1}{4}$  **Konyovo**. Road turns N. up small valley, and ascends to cross the **Konyovska Planina**.
- $21\frac{3}{4}$  Alt. 3,552 ft. Road begins to descend by zigzags, in a general NE. direction.
- $24\frac{3}{4}$  **Novoselo**, alt. about 2,590 ft.
- Road goes at first E. for  $\frac{3}{4}$  mile and then descends NNE. through a gorge.
- $28\frac{3}{4}$  Turn sharply E. and resume NNE. direction, after winding between outlying hills and main range.
- $30\frac{1}{4}$  Branch roads :—

miles

- (1) SE. to **Izvor** ( $\frac{3}{4}$  mile), **Zhitusha** (3 miles), then E. to **Kondofrei** ( $6\frac{3}{4}$  miles), whence one branch runs S. *via* **Bobovdol** ( $4\frac{1}{2}$  miles) to the Kustendil–Dupnitsa road (12 miles) (see Route 112, under mile  $19\frac{1}{4}$ ) and another ESE. to **Chukovets** (8 miles), and ESE. to **Musi Bey** ( $11\frac{3}{4}$  miles), whence there are tracks to **Kernol** and the Dupnitsa–Sofia road (see Route 99 at mile  $28\frac{1}{2}$ ).
- (2) NW. to **Debelidak** ( $1\frac{1}{2}$  miles) and **Eglnitsa** ( $3\frac{1}{4}$  miles).
- 30 $\frac{3}{4}$  Alt. 2,095 ft.
- 31 $\frac{1}{2}$  Road meets Gyueshevo–Sofia railway, and follows it closely.
- 32 Cross railway and diverge slightly from it.
- 33 $\frac{3}{4}$  Road approaches the Struma.
- 35 $\frac{1}{2}$  Cross railway and follow it closely on E. side.
- 37 $\frac{1}{4}$  **Verba.**
- 38 $\frac{3}{4}$  **Radomir**, alt. about 2,300 ft., situated at head of small oval valley, fertile and well cultivated. Samokov road branches SE. (See Route 114.) Road proceeds N., ascending hills which come down close to river.
- 42 Branch road N. by W. to **Bryeznik** ( $12\frac{1}{4}$  miles) **Tsaribrod** (36 miles), etc. Road turns E. by N., following Struma valley.
- 43 $\frac{3}{4}$  Alt. 2,346 ft. N. of road.
- 44 $\frac{1}{2}$  Cross the Struma.
- 45 Cross railway.
- 45 $\frac{1}{2}$  **Pernik**, with station; centre of the only district in Bulgaria which is at present producing coal. Coal of poor quality.
- 46 $\frac{1}{2}$  Branch road N. by W. to **Divotino**, 5 miles. Route turns E. and follows railway closely up Struma valley, at average distance of  $\frac{1}{4}$  to 3 miles S. of river.
- 49 Branch road N. to **Moshino**,  $1\frac{3}{4}$  miles, with coal mines.
- 49 $\frac{3}{4}$  Cross the Struma.

miles

50 $\frac{3}{4}$  Branch road S. up Struma valley to **Tserkva** ( $\frac{1}{4}$  mile), **Studena** ( $4\frac{1}{4}$  miles), and Sofia-Dupnitsa road (7 miles). (See route 99 at mile 38 $\frac{1}{2}$ .)

Direction of road changes to ENE. From this point it improves in quality.

51 $\frac{3}{4}$  Road crosses railway, alt. 2,441 ft. For the next  $7\frac{1}{2}$  miles both road and railway run through a narrow valley, the latter high up on the left-hand side. Surface of road in this part good (1915).

53 $\frac{3}{4}$  **Dragichevo**, 1 mile W. Road crosses railway, alt. 2,719 ft. Road from Dupnitsa enters from W. (see Route 99 at mile 48).

54 $\frac{1}{2}$  Recross railway.

55 Alt. 2,935 ft.

55 $\frac{3}{4}$  **Vladaya**. Recross railway. Road now closely follows railway.

57 $\frac{1}{2}$  From about this point, where there is a stone bridge, two roads are seen running up the hillside on r. and l. respectively. These have been made by the military authorities for the purpose of hauling heavy guns up the hill so as to defend the valley against troops advancing from the direction of Kustendil. The positions reached by these roads are overlooked from Mt. Vitosh, which commands the plain of Sofia, and is reached from Vladaya (mile 55 $\frac{3}{4}$  above) by a comparatively easy ascent.

57 $\frac{3}{4}$  Alt. 2,381 ft. W. of road.

58 $\frac{3}{4}$  **Knyazhevo**. Railway bends N., leaving road. From here to Sofia is an excellent metalled road, 30 ft. wide, along which a tramway runs.

59 $\frac{3}{4}$  Alt. 2,017 ft. Branch road NW. to **Gornya Banya** ( $1\frac{1}{4}$  miles).

60 $\frac{3}{4}$  Branch road S. by W. to **Boyana** ( $1\frac{3}{4}$  miles).

62 $\frac{1}{2}$  Outskirts of Sofia.

63 $\frac{1}{4}$  **Sofia** (centre of town).

## ROUTE 87

KUMANOVO—KRATOVO,  $29\frac{1}{2}$  miles

This is a newly-built chaussée, fairly well kept up, which affords an alternative line of advance from Kumanovo towards Egri Palanka and the Bulgarian frontier. General direction E. by S.

miles

- |                 |   |
|-----------------|---|
| 0               | <b>Kumanovo</b> , alt. 1,050 ft.  |
| $\frac{3}{4}$   | Cross the <b>Golema</b> river.  |
|                 | Cross roads. Road SE. to Ishtib (see Route 83 at mile $39\frac{3}{4}$ ).  |
| $1\frac{1}{2}$  | Cross a tributary. Road ascends over a spur and descends.   |
| 3               | Cross another tributary. Road ascends to plateau called <b>Crno Polje</b> .   |
| 7               | Road descends into a valley.  |
| 8               | Cross stream, and ascend and descend across a spur.   |
| $10\frac{1}{2}$ | Cross stream.   |
| $10\frac{3}{4}$ | Cross the <b>Pčinja</b> , and follow up valley of the <b>Kriva-Kratovska</b> . <b>Klečovce</b> $\frac{3}{4}$ mile S. on farther bank.             |
| $11\frac{1}{2}$ | <b>Han Egrisu</b> , alt. 1,004 ft., on river bank, $\frac{1}{2}$ mile SSE.  |
| 14              | Alt. 1,053 ft. From this point onward road crosses and recrosses river.   |
| $15\frac{1}{2}$ | <b>Belakovce</b> .  |
| $18\frac{3}{4}$ | Alt. 1,132 ft. <b>Dimence</b> $\frac{1}{2}$ mile N.   |
| $22\frac{1}{4}$ | Confluence of the <b>Kriva</b> and <b>Kratovska</b> streams. Road follows up the <b>Kratovska</b> , crossing and recrossing. General direction E. |
| 28              | <b>Železnica</b> , alt. 2,064 ft. Road from Stracin enters from NW. (see Route 84 at mile 32).  |
| $29\frac{1}{2}$ | <b>Kratovo</b> . Alt. 2,241 ft.   |



## ROUTE 88

## EGRI PALANKA—KAMENIČA

From information received (dated October 1913) the following military road was constructed by the Serbians, and completed before the war with Bulgaria. It runs from **Egri Palanka** in a SE. direction, climbs to the summit of **Sultan Tepe** (Car Vrh, 6,903 ft.), thence to **Kitka Mt.** (6,237 ft.), where it descends via **Pobijen** (3,803 ft.) to **Kameniča** (2,897 ft.), a village situated in the valley of the Kameniča,  $2\frac{1}{2}$  miles N. of its confluence with the **Bregalnica**. The actual road is not marked on any map; it cannot therefore be described in detail. Distance, as crow flies, from Egri Palanka to Sultan Tepe 8 miles, on to Kitka  $2\frac{1}{2}$  miles, on to Pobijen  $4\frac{1}{2}$  miles, on to Kameniča 3 miles, total 18 miles. This road is well constructed, and was used by the Serbians for the transport of their artillery, being excellently graded throughout. Apart from this road, only tracks suitable for pack transport connect the different villages in this region.

## ROUTE 89

## ISHTIB—KOČANA—CAREVO—JUMA‘-I-BALA,

71 miles

This route is reported practicable for motors (March 1916).

miles

0

**Ishtib**, alt. 951 ft.

Between Ishtib and Kočana the country S. of this road is very hilly, rising in the **Plačkovica Planina** to Mount Dobra, 4,429 ft. This range of hills is broken by many small valleys containing streams draining into the **Bregalnica**. There are also a large number of springs. The country on the N. side of this road is gently undulating and open.

 $\frac{1}{2}$ Cross river **Bregalnica**.

miles

- $1\frac{1}{4}$  Turn N. by E. A road continues NW. to Veles (Route 80).  
 $4\frac{1}{2}$  **Čardakli.** From Ishtib to this point the road closely follows the river Bregalnica on its r. bank and in a northerly direction. The road then, still following the river, bends NE. Valley is naturally marshy, and has an extensive artificial irrigation and drainage system extending about 20 miles along the river from here.  
 8 **Krupište.**  
 $8\frac{1}{4}$  Branch road to Stracin diverges N. (See Route 84.)  
 $9\frac{1}{2}$  Cross river **Zletovska**, which joins Bregalnica just below this point.  
 $14\frac{1}{4}$  Military post.  
 $16\frac{1}{4}$  **Obleševo.** Road here resumes a NE. course.  
 $19\frac{1}{2}$  Branch route diverges W. to **Sokolarci** and **Bučiste**. According to information dated 1915 this is a new chaussée as far as **Sokolarci**; beyond that point it becomes a track.
- | miles           |  |
|-----------------|--|
| $1\frac{1}{4}$  | Alt. 1,204 ft.   |
| $2\frac{1}{2}$  | <b>Banja.</b>  |
| $4\frac{1}{2}$  | <b>Spančevo.</b> N. of road. Road turns WSW.   |
| $7\frac{1}{2}$  | <b>Sokolarci.</b> From here road continues as important track up valley of Zletovska. General direction at first NW.   |
| $11\frac{1}{4}$ | <b>Lepopelci</b> , on bank of Zletovska. Track turns NNE.  |
| $13\frac{1}{4}$ | Cross <b>Zletovska</b> river.  |
| 14              | <b>Bučiste</b> , W. of track. Track joins Ishtib-Stracin track. (See Route 84 at mile $17\frac{1}{4}$ .)   |
| $21\frac{3}{4}$ | <b>Kočana</b> , alt. 1,322 ft., a small town on river of same name. Steep bare spurs of <b>Osogovska Planina</b> to N. The valley is fairly well cultivated near the town. |

miles

Rough tracks from Kočana cross the hills NW. to **Kratovo** and N. to **Egri Palanka**.

23½

Cross **Crna** river.

25

Branch track diverges SE. across Bregalnica to **Vinica** (2½ miles). (See Route 90 at mile 25.)

28

**Istibanja**, alt. about 1,300 ft. Road here crosses **Bregalnica** and turns due S.

30

**Jakimova**. Road climbs NE., E. and N. up the **Crni Kamen**.

31¾

Alternative route from Ishtib *via* Vinica enters from SSW. (See Route 90.)

33

**Vinička Gumna**. Road continues to ascend to a col over the northernmost spur of the **Golek** range.

35½

**Aladja** spring, alt. 2,707 ft.

37¼

Military post of **Kalimanci**. Summit, about 3,600 ft. Spring here. ½ mile S., village of **Grlena**. Steep descent to—

39

**Turija**. Road now re-enters valley of the Bregalnica, which, from Istibanja, makes an elbow-bend to N.

42

Here, and again 2½ miles farther on, road bends S. to cross ravines.

42½

**Bigla**, alt. 2,231 ft. To S. are the **Golek** mountains, of which Čuka Golek rises to 5,085 ft.

48

**Carevo** (Tsarevoselo), alt. 2,060 ft., on l. bank of river. Road here crosses river by bridge.

Road to Nevestino (see Route 91).

Track to Pehčevo by l. bank of the Bregalnica (see Route 92, miles 53–29¼).

48¾

Track to Pehčevo by r. bank of the Bregalnica diverges r. and S. (see Route 92 at mile 52¼).

Main road now leaves river and traverses hilly country intersected by small streams.

50½

**Zvigor**. Road now follows an affluent of the Bregalnica in NE. direction.

miles

- 54 Cross high ridge of **Lukov Vrh** watershed between Bregalnica and Struma valleys. Cross frontier from Serbia into Bulgaria.
- 55 Alt. 4,255 ft. Steep descent SE., then NE., into valley of Klisura.
- 57 $\frac{3}{4}$  **Doganyi**. Road undulates, crossing spurs and tributaries of the Struma.
- 62 $\frac{1}{4}$  **Velyako**, S. of road, and **Bednichka**, N. Road descends to valley of the Struma.
- 64 Cross the **Lisiiska**, a tributary of the Struma. Road bends sharply N. following r. bank of the Struma.
- 66 Road crosses **Struma** by bridge. In immediate vicinity, village of **Dolnyi Mahala**. Road turns E., then SE.
- 67 Branch road l. and NE. to join (1 $\frac{1}{2}$  miles) main Juma'-i-Bala-Sofia road at **Barakovo** (Route 99, alternative under mile 4). **Belopolye**,  $\frac{1}{4}$  mile W.  
Road runs S. near l. bank of Struma.
- 69 $\frac{1}{2}$  **Gramada** village to S.
- 71 **Juma'-i-Bala** (Jumaya).  
The town is situated on the main road from Seres to Sofia *via* the Rupel pass. (See Routes 98, 99.)

## ROUTE 90

## ISHTIB—KARA ORMAN—VINICA

AND JUNCTION WITH KOCANA—CAREVO ROAD, 28 miles

This provides an alternative to part of the route from Ishtib to Carevo (Tsarevoselo) and Juma'-i-Bala (Route 89).

miles

- 0 **Ishtib**, alt. 951 ft.  
Road runs up l. bank of Bregalnica, following it closely. General direction at first N.
- 2 $\frac{1}{2}$  **Kara Orman**.

miles

- 2 $\frac{3}{4}$  Branch road runs NNE. to **Tarainci** (1 $\frac{1}{4}$  miles), crosses streams (2 miles), and rejoins main route (2 $\frac{3}{4}$  miles) at mile 5 $\frac{1}{2}$ .  
Route continues N. by E.
- 4 $\frac{3}{4}$  **Cerkovci**. Road takes general NE. direction, and crosses stream.
- 5 **Karbinci**.
- 5 $\frac{1}{2}$  Branch road (see mile 2 $\frac{3}{4}$  above) rejoins.
- 7 Cross stream.
- 11 **Buzičevo**,  $\frac{1}{2}$  mile S.
- 13 **Kučičino**,  $\frac{1}{2}$  mile S.
- 14 $\frac{1}{4}$  **Bukovec**,  $\frac{1}{4}$  mile S.
- 16 **Teranci**,  $\frac{1}{4}$  mile S.
- 18 **Vidovišta**,  $\frac{1}{2}$  mile S.
- 19 **Morozda**,  $\frac{1}{4}$  mile S.
- 20 $\frac{3}{4}$  **Zernovci**,  $\frac{1}{2}$  mile S.
- 22 Rice-fields N. of road.
- 25 **Vinica**. A branch track NW. across rice-fields crosses the Bregalnica, 1 $\frac{1}{2}$  miles (bridge), and joins Kočana-Carevo road (2 $\frac{1}{2}$  miles) at point 3 $\frac{1}{4}$  miles E. of Kočana. (See Route 89 at mile 25.)  
Road continues in same general direction.
- 26 $\frac{1}{2}$  Cross rice-fields for  $\frac{1}{2}$  mile.
- 27 Road ascends slightly.
- 28 Join Kočana-Carevo road. (See Route 89 at mile 31 $\frac{3}{4}$ .)

## ROUTE 91

## CAREVO—NEVESTINO

## AND JUNCTION WITH KUSTENDIL—DUPNITSA ROAD

miles

- 0 **Carevo** (Tsarevoselo), alt. 2,060 ft. Road leads NNE. It crosses the Bregalnica by a bridge on outskirts of town and ascends hills. After a few miles it degenerates into a track.



miles

2 $\frac{3}{4}$ **Stimivlja**, W. of road.

4

Alt. 3,445 ft. Track begins to descend.

From here there are alternative routes (A) and (B).

## ROUTE (A)

6

Track crosses Serbo-Bulgarian frontier.

Track approximately follows the frontier for more than  $\frac{1}{2}$  mile.6 $\frac{3}{4}$ 

Alt. about 3,400 ft. Descend a small valley.

7 $\frac{1}{4}$ 

Cross a stream and proceed down the valley NE.

8

Recross stream and descend valley.

9

Enter valley of the **Rechitsa**.9 $\frac{1}{2}$ **Hanovet**. From this point for several miles the route runs due N., following very closely the course of the Rechitsa.16 $\frac{1}{4}$ Another village called **Hanovet**, alt. about 1,800 ft., on the banks of the **Eleshnitsa**.

Cross the river. Track ascends steeply.

17 $\frac{1}{2}$ **Kumbazeto**.

18

Alt. about 2,380 ft. Descend gradually.

19 $\frac{1}{2}$ **Eremiya**, alt. about 1,800 ft., on a tributary of the **Eleshnitsa**.

The track now crosses a ridge to—

22 $\frac{3}{4}$ **Nevestino**, alt. 1,540 ft.

23

Join the Kustendil-Dupnitsa road (see Route 112 at mile 7 $\frac{1}{4}$ ).

## ROUTE (B)

An alternative ridge track, which might have to be used when the Rechitsa river is high.

miles

7 $\frac{1}{2}$ 

Alt. 3,212 ft. Cross frontier into Bulgaria.

8 $\frac{3}{4}$ 

Cross stream.

9 $\frac{1}{2}$ 

Recross stream. Track turns NE. down valley.

10 $\frac{1}{4}$ 

Track leaves valley and ascends hills NW.

10 $\frac{3}{4}$ 

Track turns in NNE. direction, and descends to valley of stream, down which it runs.

miles

- |     |   |
|-----|---|
| 12½ | Cross the <b>Rechitsa</b> , and ascend hills E. of valley.  |
| 13¾ | Alt. 3,711 ft. Track turns NNE.   |
| 14¼ | <b>Bariltsi</b> , ½ mile SE. Track runs along ridge between the Richitsa and Kopriven.              |
| 16¾ | Alt. 3,570 ft.  |
| 18  | <b>Gornyi Semevchi</b> , E. of track.   |
| 19¼ | Alt. 3,445 ft. Track turns N. and begins to descend.  |
| 24¼ | Alt. 2,254 ft.  |
| 25½ | Track crosses the <b>Rechitsa</b> about 1 mile W. of its confluence with Struma, and then turns NW. |
| 28½ | <b>Nevestino</b> .  |

## ROUTE 92

## STRUMITSA—PEHČEVO—CAREVO

## ROUTE (A)

The road, according to the Bulgarian map of 1914, is a good carriage road for 10½ miles N. of Strumitsa, and again from 10½ miles SW. of Pehčevo. The intervening section is a bad carriage road. According to a report of March 1916 the section from Strumitsa to Cervnik is being superseded by a main road which is under construction and passes through Podareš, Mačovo, and Pehčevo. The road is to be carried on to Juma'-i-Bala through Gabrovo. The track from Pehčevo to Carevo is fit for carriage traffic.

miles

- |    |   |
|----|---|
| 0  | <b>Strumitsa</b> , alt. 860 ft. The road leaves the town at the N. end in a N. by E. direction. |
| ½  | Cross the <b>Vodecha</b> river.   |
| 3  | <b>Vasilyevo</b> .  |
| 3¼ | Cross the <b>Strumitsa</b> river.   |
| 5  | Cross roads, alt. about 1,050 ft.   |

miles

Branch roads :—

(i) NW. to **Radovišta** (15 miles). At  $8\frac{1}{2}$  miles along it a track branches NE.  $\frac{3}{4}$  mile to **Podareš**.

(ii) SE. to **Petrich**, joining the Strumitsa–Petrich road (see Route 94 at mile  $10\frac{1}{2}$ ) in 10 miles.

6 **Dobroshintsi**, in the **Novichanska** valley. Road ascends the valley.

8 Cross frontier from Bulgaria into Serbia.

$10\frac{1}{2}$  Road leaves the valley and ascends **Kushkollu** mountain steeply in a NW. direction.

13 Alt. about 2,950 ft. Turn ENE. along a ridge.

$20\frac{1}{2}$  Alt. about 3,600 ft.

A path branches W. and later turns SW. to **Podareš** (about 14 miles) and the Strumitsa–Radovišta road mentioned under mile 5 (i) above. This may be the line of the new road (see note at head of route), but the rise in the last  $1\frac{1}{2}$  miles is very steep according to the Bulgarian map. The contours on the map are approximate, and the Austrian map shows no such rapid rise.

Route turns E.

$21\frac{1}{2}$  Route turns ENE. and descends.

$25\frac{3}{4}$  **Mačovo**.

$26\frac{1}{4}$  Cross the **Bregalnica** by a bridge. Cross undulating country to—

31 **Pehčevo** (Osmanie), alt. about 3,400 ft., in valley of the Pehčevska. Route joins Route (B) below.

#### ROUTE (B)

This is a rough mountain road in part only fit for pack transport. It is reported (1916) to be in bad condition to Berovo,  $6\frac{1}{2}$  miles short of Pehčevo ; from that point onwards it is fit for wheeled traffic.

miles.

0      **Strumitsa**, alt. 860 ft.

The route leaves the town in an E. direction, crossing the plain of Strumitsa, and in so doing crossing the Strumitsa and some of its affluents.

2½      **Dabilya**. The route from here to Hamzali (mile 8¼) appears to be a cart-track.

4½      **Dragomir**.

5½      **Petralič**.

8¾      **Hamzali**. Here route reaches foot of Dragoneva mountains, and continues as a mule-track up a narrow valley to a pass between these mountains and the Ograzhden Planina.

11¾      Ascent becomes very steep.

13¾      Military post at summit; alt. about 3,600 ft. Cross frontier from Bulgaria into Serbia. Route then crosses head of **Suha Laka** valley (alt. about 2,260 ft.) by steep descent and ascent.

16¾      Alt. about 3,600 ft. Descend to head of valley of a tributary of the Bregalnica.

18½      **Sirina**, l. of track.

20¼      Cross **Bregalnica** and turn N. for 1½ miles down r. bank. Route continues as cart-track, turning E. up l. bank of the **Berovska**, to—

22¾      **Berovo**. Cross stream. The route leads N. and NE., undulating and crossing a steep spur of the **Maleš Planina** to—

29¼      **Pehčevo**. Route joins Route (A), above.

Road now turns NNW.

31      **Negrevo** village. Route ascends steeply near head of valley, and crosses divide separating it from valley of the Zelevica.

33½      Summit, 4,757 ft. Descend to and follow r. bank of Zelevica.

38      **Cervnik**, ½ mile E.

miles

44

**Trabotiviste.** The Zelevica joins the Bregalnica. Road turns NNW., and follows the **Bregalnica** downward (there appear to be a bridge here and tracks on both sides of the river). Following r. bank—

50

**Stamer**,  $\frac{1}{2}$  mile from river.

52 $\frac{1}{4}$ 

Junction of r. bank track with Ishtib-Juma'-i-Bala Route (Route 89 at mile 48 $\frac{3}{4}$ ).

53

**Carevo** (Tsarevoselo). Junction of l. bank track with Ishtib-Juma'-i-Bala Route (Route 89 at mile 48).

## ROUTE 93

### PEHČEVO—BRESNITSA

AND JUNCTION WITH SERES-JUMA'-I-BALA ROAD, 17 miles

This is an important route, giving access from the Vardar to the Struma valley at a point N. of the Strumitsa-Petrich line of communication. It is reported fit for wheeled traffic, but not for motor transport.

miles

0

**Pehčevo**, alt. about 3,400 ft. The road leaves the town in an E. direction.

2 $\frac{1}{2}$ 

Road turns sharply N. by W.

4 $\frac{1}{2}$ 

Road turns back SE., then ENE.

6

Summit of pass, alt. about 5,400 ft.

7 $\frac{3}{4}$ 

Road crosses the Greco-Bulgarian frontier and then turns SSE. into valley of the Soliste Dere, a tributary of the Struma.

9 $\frac{1}{4}$ 

Road turns E. and follows Soliste Dere on r. bank.

15 $\frac{3}{4}$ 

**Bresnitsa.** Road turns SE. to bank of the **Struma**.

16 $\frac{3}{4}$ 

Road crosses the road up W. bank of the Struma. (See Route 98 under mile 31.)

17

Road crosses the **Struma** by a bridge, and enters the main Seres-Juma'-i-Bala road. (See Route 98 at mile 56 $\frac{1}{4}$ .)



## ROUTE 94

## STRUMITSA—PETRICH—KARASU BRIDGE

This road is reported to be fit for motor transport, and is used for a regular motor service between Strumitsa and Juma'-i-Bala (1916). It is a very important route, being the main line of communication from the SW. frontier of Bulgaria. A report of March 1916 mentions that the Bulgarians are constructing a track along the line just N. of the main route, thus in a sense doubling it.

miles

0      **Strumitsa**, alt. 860 ft. On the river of the same name, a tributary of the Struma.

The road starts in an E. direction.

2½      **Dabilya**. The road follows the l. bank of the Strumitsa.

10½      A road branches NW. to Radovišta (25 miles), crossing the Strumitsa-Pehčevo Route in 10 miles (Route 92, under mile 5, ii).

13½      **Yeniköi** (Novoselo), alt. 843 ft. Road runs close to bank of river, gradually falling.

15¾      Alt. about 580 ft.

31¼      Road crosses river.

34¼      **Petrich**, alt. 778 ft., at foot of hills at SE. extremity of Strumitsa valley, an important frontier station, at the head of a road up the Struma valley (see Route 98 under mile 31).

Maps are at variance as to the direction of the road beyond Petrich, and the position of the **Karasu Bridge**. According to the Bulgarian map (1914), road runs NE. 6 miles to the bridge, which crosses the Struma 1 mile below the point where the Strumitsa joins it. The Greek map (1914) places the bridge 5½ miles below the point of junction with the Strumitsa, and

miles

the Austrian Staff map places it about 3 miles below the same point; these maps show the road running E. from Petrich.

### *Alternative Route*

There is an alternative track along the foot of the hills S. of the Strumitsa valley, all the way from Strumitsa to Petrich ( $32\frac{1}{4}$  miles), passing through a series of small villages.

From the Karasu bridge, a track down the r. bank of the Struma (see Route 98, branch track (i), under mile 20) can be followed to the railway bridge and ferry at the lower end of the Rupel pass.

## ROUTE 95

DOIRAN—DEMIR HISAR, 43 miles

A fair cart-road for 8 miles, and thereafter a fairly good track, which might be of considerable importance as an alternative to this section of the Salonica-Seres line.

miles

- |                 |   |
|-----------------|---|
| 0               | <b>Doiran.</b> Road follows Doiran-Salonica road round S. side of lake.   |
| $1\frac{1}{4}$  | Leave Salonica road (see Route 77 at mile $43\frac{1}{2}$ ), and follow road to Doiran station.                 |
| $1\frac{3}{4}$  | Cross Greco-Serbian frontier.   |
| $2\frac{1}{2}$  | <b>Doiran station.</b> (For track from <b>Kukush</b> , &c., see Route 150 under mile $30\frac{1}{2}$ , no. iv.) |
|                 | Road proceeds between railway and lake in general NE. direction.  |
| 4               | Cross railway.  |
| 8               | Branch track from <b>Serakli</b> , <b>Kukush</b> , &c. (see Route 150).   |
| 10              | <b>Akinjali station</b> , alt. 630 ft.  |
| $12\frac{1}{2}$ | Cross railway.  |

miles

- 13 $\frac{1}{4}$  **Dova Tepe**, alt. 892 ft. Highest point of road. *Han*. The pass or nek of Dova Tepe lies between the Krusa Balkan ridge (2,000–3,000 ft.) to S. and the Belashitsa Planina to N.
- 13 $\frac{3}{4}$  Cross railway and turn ESE. down the Butkovo valley.
- 14 $\frac{1}{2}$  Alternative road branches E., crosses railway at 2 $\frac{1}{2}$  miles (alt. 541 ft.), closely follows it to **Poroi** station, (4 $\frac{1}{4}$  miles), crosses mountain track mentioned at mile 21 $\frac{1}{2}$  below, crosses railway (alt. 220 ft., 8 miles), and rejoins main route at **Butkovo Juma** (9 miles).
- 17 $\frac{1}{4}$  Branch track from **Serakli**, **Kukush**, &c. (see Route 150).
- 18 $\frac{1}{4}$  **Todarovo**.
- 20 $\frac{3}{4}$  **Radile**. Road to Seres branches SE. (see Route 97 at mile 34 $\frac{3}{4}$ ).
- Route now turns NNE., crossing the **Butkovo**.
- 21 $\frac{1}{2}$  Branch track runs N. across hills (Belashitsa Planina), to **Gornyi Poroi** (3 miles, alt. 1,165 ft.), rising to nearly 4,000 ft. at 6 $\frac{1}{4}$  miles, and descending into Strumitsa valley to **Kamena** (11 miles), where it joins the Strumitsa–Petrich–Karasu Bridge road (see Route 94, alternative).
- 23 $\frac{1}{2}$  **Chair**. Road turns NE.
- 25 $\frac{1}{4}$  **Butkovo Juma**. Alternative road (see mile 14 $\frac{1}{2}$  above) rejoins. Road turns E.
- 25 $\frac{1}{2}$  Cross railway and follow it closely. Marshy ground between road and head of Butkovo marsh, 1 mile S.
- 31 **Tushchulu**.
- 34 $\frac{1}{4}$  **Haji Beylik** station. Road turns ENE.
- 37 $\frac{1}{4}$  **Vetrina**. Road runs to r. bank of Struma.
- 39 Ferry across river to Seres–Juma'-i-Bala road (see Route 98, under mile 20), immediately N. of railway bridge.

A track continues up r. bank of river, which at

miles

10 miles meets road from Petrich to Karasu Bridge (see Route 94) and Seres-Juma'-i-Bala road (see Route 98, under mile 20).

43

Route continues SSE. to—  
**Demir Hisar.**

## ROUTE 96

SALONICA—SERES—DRAMA,  $94\frac{1}{4}$  miles

This road is reported (1916) fit for motor transport to Seres, being metalled throughout, but very greasy in wet weather. It is much used by heavy traffic, and requires constant attention. Repairing material is available everywhere. Traffic is slow owing to heavy gradients. Those on the northern slopes of the hills are steepest, but they can be ascended (though with difficulty) by heavy motors. There are numerous culverts, some needing minor repairs. They are mostly at bends of the road, and are without parapets and dangerous at night. Practically no supplies are available along the route. (For note on continuation to Drama see under mile  $54\frac{1}{4}$  below.)

miles

- |                |   |
|----------------|---|
| 0              | <b>Salonica.</b> Road leaves the town on N. side and strikes N. across the plain among bare undulating hills. |
| 2              | <b>Karaissi</b> village $\frac{1}{2}$ mile E.   |
| $2\frac{1}{4}$ | A road branches in a general E. direction to Pazarkia and Chai Aghizi (see Route 118).                        |
| $4\frac{1}{2}$ | Military post. Road ascends sharply to cross pass in hills.   |
| 5              | Road turns NE.  |
| 6              | Summit of pass, 663 ft.   |
| 7              | <i>Han.</i>   |
| 8              | A road branches SE. and then E. via <b>Sarachli</b> ,   |

miles

2½ miles, to **Langaza**, 4½ miles. For tracks from Langaza see Routes 154, 155, 156.

Route runs N. and passes through uncultivated country.

9½ **Aivatli**, ½ mile SW.

11¾ Branch track NW. to **Kukush**, &c. (see Route 150).

13¾ Branch track N. to **Lozhista** (see Route 151).

16¾ **Guvezne** village. Good water-supply.

A track branches r. and S. to **Langaza**, 7 miles.

Main road now passes over outliers of neighbouring hills. At first it continues N., but soon takes a generally NE. direction, ascending sharply.

21 Alt. 1,785 ft.

24 Alt. 1,600 ft. Good water-supply hereabouts.

24½ Alt. 1,752 ft.

26½ Road crosses the **Likovan Dere**.

28 Road crosses another branch of the **Likovan Dere**. Good bridges.

29 **Likovan** (Negovan), alt. 1,627 ft.

Here a track branches r. and E. to **Berovo**, 7 miles, alt. 2,264 ft. (see Route 154 at mile 19½).

Another track enters from WSW. from **Karajaköi** (see Route 153 at mile 21).

The main road ascends the **Beshik Dag**, passing near its crest near **Lahana**. Water is very scarce as far as the **Struma** (mile 44).

32 **Lahana**, alt. 2,165 ft. Wells (no surface water). Road begins to descend into the **Seres** plain.

35 Inn, alt. 2,001 ft.

37 Alt. 2,057 ft.

40½ **Bashköi** village S. of road (see Route 154 at mile 27¼). Road traverses fertile country.



miles

43½

Branch roads—(i) NW. to Doiran (see Route 97) ; (ii) SE. and later ESE. as a cart track, to join the Chai Aghizi-Seres road at **Jami** (Route 119 at mile 26¾).

44

**Orlyako** bridge over the **Struma** (Karasu Chai) to **Kadrije**, 50 yds. long, 10 ft. wide, suitable for any military traffic.

Hence onwards to Seres the road traverses an open and well-cultivated plain, inclined to be marshy, and crossed by cart-tracks (boggy in wet weather) in all directions. Plain and road are overlooked from Seres and the high ground to N. and W.

46¼

**Yeniköi** village.

48

Road crosses the **Belitsa** river.

49½

Cross Salonica-Dedeagach railway.

50¾

Military post. A road branches l. and NW. to **Demir Hisar** (13 miles) and up the valley of the **Struma** through the **Rupel** pass, and to **Juma'-i-Bala**, **Dupnitsa**, and **Sofia** ; see Routes 98, 99.

54¼

**Seres.**

According to a report of March 1916, a military carriage road is under construction from Seres to **Drama** round the southern slopes of the **Sminitza Mts.** It is fit for light lorries between Seres and **Porna**, and again between **Alistrat** and **Drama**. The intervening section is under construction. The distances given here are uncertain, as the maps show only mule tracks in some parts and the detailed course of the road is not known.

The road leaves **Seres** in an E. by S. direction and passes through **Topolyani** (5½ miles) and **Sarmusakli** (8 miles) to **Porna** (13½ miles) village and station on the Salonica-Dedeagach railway (see Route 120 under mile 20¾).

A good road runs from **Porna** 4 miles to **Ziliahovo**. The maps show two tracks between **Ziliahovo** and **Alistrat**, one NE. and E. over the higher slopes of the **Sminitza Mts.** (about

11 miles), and one (probably followed by the road under construction) SE. and then NE. to Alistrat (about 13 miles) *via* the **Angista** valley, running roughly parallel to the railway for  $3\frac{1}{2}$  miles and connecting with **Angista**, station and village, by a track SSE. crossing the Angista river. According to one authority, the road is fit for wheeled traffic from Ziliahovo to the railway,  $5\frac{1}{2}$  miles SE.

From Alistrat a good road runs NE. and then E. to **Drama** (about 10 miles), crossing several tributaries of the Angista.

**Drama** is approximately 40 miles from Seres ( $94\frac{1}{4}$  from Salonica).

## ROUTE 97

SERES—DOIRAN,  $55\frac{1}{2}$  miles

WITH BRANCHES TO THE SERES—JUMA'-I-BALA ROAD

This route is a fair cart-road throughout, and is reported fit for motor transport.

miles

0

**Seres**, alt. 164 ft. Route follows the Seres-Salonica road as far as the bridge over the Struma at Kadrije (see Route 96, miles  $54\frac{1}{4}$ –44).

An alternative track leaves the Seres-Demir Hisar road (see Route 98 at mile  $3\frac{3}{4}$ ) and runs W. At  $6\frac{1}{4}$  miles it crosses the railway and turns WNW. At 8 miles it crosses the Belitsa. At  $9\frac{1}{4}$  miles passes **Topalova** village; at  $11\frac{3}{4}$  miles **Elishan** village; at  $12\frac{1}{2}$  miles crosses an arm of the Belitsa by a bridge; at  $13\frac{3}{4}$  miles crosses the Struma by the Kopriva bridge, and at  $14\frac{1}{4}$  miles joins the main route (see mile  $16\frac{3}{4}$ , below). The Kopriva bridge is fit for all traffic. It is 12 ft. wide. From **Elishan**, 2 miles beyond it (see above), a road reported passable for motors (under good conditions) leads N. by **Barakli Juma** (6 miles),

miles

**Spatovo** (10 miles), and reaches the Salonica–Seres railway at **Demir Hisar** railway station, and the Seres–Juma‘-i-Bala road immediately beyond ( $12\frac{1}{2}$  miles : see Route 98 at mile  $18\frac{3}{4}$ ).

 $10\frac{1}{4}$ 

**Kadrije.** Cross the Struma by Orlyako bridge.

 $10\frac{3}{4}$ 

Road turns up the r. bank of the Struma, branching NW. from the Salonica road (Route 96 at mile  $43\frac{1}{2}$ ). The river hereabouts has an average width of 150 yds., with low banks of similar height on either side. There are many sandbanks and low islands in the stream, which varies greatly in depth, averaging 6–10 ft. in winter, and 1–5 ft. in summer, with sandy bottom. Average speed of current  $1\frac{1}{2}$  miles per hour.

Route follows a good sandy track.

 $12\frac{1}{4}$ 

**Dragos** (see Route 153). Ford over the Struma to E., for country carts practicable in summer only.

 $14\frac{3}{4}$ 

Another ford, like the above, over the Struma to E.

 $16\frac{3}{4}$ 

Cross the **Gümüs Dere**.

Road is joined by the alternative track mentioned above (mile 0), and by a track from Hamzali, &c. (see Route 152 at mile 50).

Route continues up the r. bank of the Struma.

 $21\frac{3}{4}$ 

Ferry over the Struma to E., capable of taking 4 horses.

 $22\frac{3}{4}$ 

Another similar ferry to E., with bad approach from route.

 $24\frac{1}{2}$ 

Marshy ground between the road and the river. The road makes a detour to the SW. to get round the S. edge of the **Butkovo Göl**. The course of the Struma in the neighbourhood of this marsh is incorrectly laid down on the Austrian Staff map.

 $26\frac{1}{2}$ 

Road turns NW. along the shore of the marsh.

28

**Lozhista** village (see Route 151 at mile  $51\frac{3}{4}$ ),  $\frac{1}{2}$  mile to SW. The road gradually recedes from the marsh.

miles	
30 $\frac{1}{2}$	<b>Butkovo</b> village, N. of road.
33 $\frac{1}{2}$	<b>Deli Hassan.</b>
34 $\frac{3}{4}$	<b>Radile.</b> Route joins road between Doiran and Demir Hisar (see Route 95 at mile 20 $\frac{3}{4}$ ).
55 $\frac{1}{2}$	<b>Doiran.</b>

## ROUTE 98

SERES—DEMIR HISAR—JUMA‘I-BALA, 83 $\frac{1}{4}$  miles

This is one of the principal strategical routes, providing a line of entrance into Bulgaria via the Struma valley from the Salonica–Dedeagach railway at Demir Hisar, where a special military station has been constructed for detraining troops. This route was followed by the Greek army in 1913.

From Seres to Demir Hisar is a good chaussée (according to report of March 1916) through open cultivated country. The soil is of hard clay and stony, providing good going in all weathers.

From Demir Hisar to Juma‘i-Bala is a chaussée, the greater part of which, from the Karasu bridge (where the road from Petrich comes in) to Juma‘i-Bala, has been lately repaired, and is in very good condition (Jan. 1916). From Petrich to the Kryesna defile the alternative track on the right bank of the river is reported to have been made fit for motor traffic, thus doubling the carrying capacity of the route in this important section. The road is vulnerable at many points in the Kryesna defile. The Struma is unfordable, and in the upper reaches its current is swift.

miles	
0	<b>Seres</b> , alt. 164 ft. Route starts by Salonica road (see Route 96, miles 54 $\frac{1}{4}$ –50 $\frac{3}{4}$ ).
3 $\frac{1}{2}$	Demir Hisar road diverges and turns WNW. up E. side of Belitsa valley along foot-hills of the Sharlija range.

miles

- 3 $\frac{3}{4}$  A track branches W. to join Route 97 (which see, under mile 0).
- 6 $\frac{1}{2}$  Cross the **Karan Dere**.
- 7 $\frac{1}{2}$  A track leads W. across the Belitsa to **Prosenik** village and station on farther bank.  
Direction of road changes to NNW. Cross numerous streams.
- 10 $\frac{1}{2}$  **Savyak**,  $\frac{1}{2}$  mile E. of road. Good camping ground ; water plentiful.
- 13 Cross railway.
- 14 $\frac{1}{2}$  **Latrovo** station.
- 14 $\frac{3}{4}$  Recross railway, and turn NNE.
- 16 Cross the **Valovishka** (Belitsa) and reach **Demir Hisar** (Valovishta), alt. about 230 ft. The high-cambered bridge and the streets are inconvenient for transport, but a good unmetalled track skirts the SW. side of the town, crossing the Valovishka by a shallow ford. This is always fit for ordinary wheeled traffic and could be made fit quickly for motor transport.  
For Demir Hisar—Nevrokop road, see Route 107.  
Route runs NW. across the plain.
- 18 $\frac{3}{4}$  **Demir Hisar** railway station with special military facilities (see Section on *Railways*, Route VII, at mile 84) close SW. of road. **Pulyovo**, 1 mile NE.
- 20 Road reaches lower end of **Rupel Pass** at the point where the railway crosses the Struma (alt. 180 ft.), and hills on E. give positions commanding the approach up river from W. and SW. (defended by the Bulgarians against the Greeks after retreat from Doiran, 1913).  
Branch tracks :—  
(i) Up the W. bank of the Struma for 10 miles, where it joins the road from Strumitsa and Petrich (Route 94, alternative) and crosses the Karasu bridge at 10 $\frac{1}{2}$  miles to rejoin the route at mile 31 below.  
(ii) To **Doiran** (Route 95 at mile 39), W. by S.



miles

Road follows l. bank of Struma N. beneath heights which are closer to the river on this bank than on the other.

23 **Rupel.**

24 Alt. about 213 ft. The valley widens.

28½ The road crosses the **Bistritsa**, a tributary of the Struma, by a stone bridge. Greek-Bulgarian frontier.

28½ **Kula.** Hence road bends NNW. and farther from river.

31 According to the Greek official map, 1914, a road branches SW. across the river by Karasu bridge (stone or iron) to **Petrich** (7¼ miles) and **Strumitsa**. (See Route 94.) From Petrich a road reported to have been made fit for motor transport runs NNE., crosses the Strumitsa (3 miles), and runs up the W. bank of the Struma, close to the river and main road throughout, as far as the **Kryesna** bridge (see mile 60½ on main route) for a distance of 26 miles. 4 miles S. of Kryesna bridge this road is crossed by a road from Bresnitsa and Pehčevo (see Route 93 at mile 16¾).

A road branches in a general direction first N., and later ENE. to **Nevrokop** (see Route 109).

33 **Marnopole.**

Road crosses a spur N. to valley of **Melnishka** (tributary of the Struma), crosses stream, and ascends hills to N., diverging from river.

34 According to the Bulgarian map (1914) the branch road already mentioned under mile 31 above leaves the route at this point (see Route 94).

35½ Road turns NNW., and returns towards river.

37¾ **Livunovo.**

40½ Cross the **Gogoritsa** river (bridge). **Lyeshnitsa** 1½ miles NNE. up valley. Road returns to Struma valley, and crosses a series of broad cultivated ridges with

miles

intervening affluents of the Struma, viz. Bistritsa (42 $\frac{1}{4}$  miles), Guymendzha (45 miles).

48

**Han Byelitsa.**

49 $\frac{1}{2}$ 

Cross the **Gogovachka** river.

51

Cross the **Saz Dere.**

55 $\frac{1}{4}$ 

**Han Gradeshnitsa.** The road approaches the **Kryesna Derbend** (pass), scene of the Greek advance in 1913.

56 $\frac{1}{4}$ 

A road branches NW. across the river (bridge) and leads W. to **Pehčevo** (see Route 93).

56 $\frac{1}{2}$ 

Cross the **Kirkitsa** stream.

It is reported that from **Yeniköi**,  $\frac{3}{4}$  mile up this stream, a road turns N. across the hills (2 $\frac{3}{4}$  miles) by a winding course passing between the villages of Vakanov (7 $\frac{1}{2}$  miles) and Mechkul (8 $\frac{1}{4}$  miles) and rejoining the main road at 9 $\frac{1}{2}$  miles (see mile 64) after crossing the Struma by a strong wooden bridge of one 60-foot span (1905). This appears to be a disused stretch of the main road.

58

Road turns NE. away from river, and winds up the side-valley of the Seytan Dere, 1 $\frac{1}{2}$  miles, then crosses stream, and returns W. 1 mile, winding back to main valley.

60 $\frac{1}{2}$ 

Road crosses the Struma by the **Kryesna** bridge to W. bank, and continues up the valley, entering the steepest part of the gorge. Alternative road from Petrich (see mile 31 above) enters from S.

64

Alternative track mentioned under mile 56 $\frac{1}{2}$  above is said to enter from SE. Road continues along a narrow gorge bordered by steep cliffs, following the stream closely at a height of 30–50 feet above it, on steep rocky slopes covered with brushwood.

67 $\frac{1}{4}$ 

**Krupnik.** End of gorge.

miles	
68	Bridge over <b>Sushitsa</b> . Alt. 902 ft. Road passes NNW. over more open and level valley to—
71½	<b>Simitlii</b> .
74½	Road recrosses to l. bank of Struma. Alt. 1,129 ft. Track from the Nevrokop—Juma'-i-Bala road (see Route 101 under mile 47½) enters from SSE. Road ascends another gorge, following the windings of the river.
80¼	<b>Karasköi</b> . N. end of gorge: the valley broadens. Road leaves the river and turns N.
83¼	<b>Juma'-i-Bala</b> , alt. 1,342 ft.

## ROUTE 99

JUMA'-I-BALA—DUPNITSA—SOFIA, 57½ miles

This route is the northward continuation of the two important roads from Seres and Nevrokop (Routes 98, 101) converging at Juma'-i-Bala, and affords the main line of advance upon Sofia from the south. It is a chaussée throughout, and is reported to be in good order and fit for motor transport. From Juma'-i-Bala to Barakovo there are two routes.

miles	
0	<b>Juma'-i-Bala</b> , alt. 1,342 ft. The main road leaves the town at its NW. corner and climbs over the Dobrava spur in a general NNW. direction.
1½	Road descends into a small valley.
2	Cross stream and ascend a spur at farther side of valley.
2¾	Road descends N. slope of spur.
4	<b>Barakovo</b> . Road is joined by alternative route from Juma'-i-Bala.

The alternative route from Juma'-i-Bala (reported fit for motor transport) leaves the town on the W. side,

miles

alt. 1,302 ft. It runs WSW. along the foot of hills to the N. At  $1\frac{1}{2}$  mile it turns WNW. and approaches the Struma. At  $3\frac{1}{2}$  miles road turns N. and begins to ascend. At  $4\frac{1}{4}$  miles a track branches NW. across the Struma by a bridge to Carevo (see Route 89 at mile 67). The road reaches **Barakovo** at  $5\frac{3}{4}$  miles and rejoins the main road.

$4\frac{1}{4}$  Road crosses the **Rilska** and proceeds N. by W. across a marshy plain containing many streams and rice fields.

$5\frac{1}{2}$  **Kocherinovo.**

A road branches NE. to Rila ( $4\frac{1}{2}$  miles) and Samokov. (See Route 111.)

The road turns sharply W. by S. and ascends across a spur.

$5\frac{3}{4}$  Alt. 1,463 ft. Road begins to descend.

$6\frac{1}{2}$  Road re-enters Struma valley and proceeds N. along the foot of hills which rise to E.

8 Road closely approaches river at foot of spur to E.

$8\frac{1}{4}$  A branch road leads W. by S. across the Struma (bridge), from which tracks radiate to villages on r. bank of river.

$11\frac{1}{4}$  Road bends N. by E.  $1\frac{1}{4}$  miles SW. of this point is the confluence of the Dzhermen with the Struma. The road follows the valley of the former.

$15\frac{3}{4}$  **Dzhermen** village,  $\frac{1}{2}$  mile E. of road.

$18\frac{1}{2}$  **Saliyski Chiftlik.** A road branches W. to **Kustendil** (see Route 112 at mile 22).

$19\frac{1}{2}$  **Dupnitsa**, pop. 8,000. A long straggling town on both banks of the Dzhermen. Centre of important trade in corn.

$20\frac{3}{4}$  A little way N. of the town a road branches in a direction first ESE. and later ENE. up the S. side of the valley of the Dzhermen along the lower hills. Passing through several small villages it joins the

miles

Dupnitsa-Samokov road at 10 miles from Dupnitsa. (See Route 113, alternative under mile 0.)

21 The main road to Samokov (Route 113) branches ENE. up the N. bank of the Dzhermen.

Route turns NNW., crosses the **Topolnitsa**, and proceeds up its W. bank along the foot of hills to the SW.

24 $\frac{1}{4}$  Road turns N. Road climbs a spur between the Topolnitsa and a tributary.

26 Alt. about 2,230 ft. Road turns NNE., ascending the Dupnitsa pass.

28 $\frac{1}{2}$  Summit of pass, alt. about 2,330 ft.

**Kernol** village,  $\frac{1}{2}$  mile W. of road, with tracks NW. to **Musi Bey**, 2 $\frac{1}{2}$  miles, on branch road from Kustendil-Sofia road (Route 86, under mile 30 $\frac{1}{4}$ ).

Road begins to descend.

31 Road turns N. by W.

33 **Gradinit** village,  $\frac{1}{3}$  mile E.

34 Road crosses the Radomir-Samokov road (see Route 114 at mile 10 $\frac{1}{2}$ ), alt. 2,335 ft. From this point the best route to Sofia is *via* Radomir, though it is more circuitous than the present route. See Routes 114 (miles 0-10 $\frac{1}{2}$ ) and 86 (mile 38 $\frac{3}{4}$  to end).

35 $\frac{1}{4}$  Road ascends steeply up hill-side and is poor in quality for  $\frac{1}{2}$  mile.

36 Summit of rise, alt. about 2,800 ft.

36 $\frac{1}{4}$  Road descends again with several windings.

36 $\frac{3}{4}$  Road turns NNE. up a small valley.

38 $\frac{1}{2}$  A branch road leads N. to **Tserkva** (6 $\frac{3}{4}$  miles), and joins the Kustendil-Sofia road at 7 miles (see Route 86 at mile 50 $\frac{1}{4}$ ).

Route descends NNE. into the **Struma** valley.

39 Road reaches Struma and proceeds down its l. bank.



miles	
40	<b>Krapets</b> village. Road crosses to r. bank of Struma and turns N.
41 $\frac{1}{4}$	Road ascends bank of river, which here turns W.
44	Road begins to descend wooded hill-side into valley of a tributary of the Struma.
46	Road crosses stream and turns NE.
47 $\frac{1}{4}$	Road passes under railway.
48	<b>Dragichevo</b> . Road joins the Gyueshevo—Kustendil Sofia road (see Route 86 at mile 53 $\frac{3}{4}$ ) and proceeds along it to—
57 $\frac{1}{2}$	<b>Sofia</b> .

## ROUTE 100

SERES—KARAKÖI—NEVROKOP, 42 miles

This is the first section of an unfinished chaussée over the hills from Seres to Nevrokop. It is described as a rough chaussée for 13 miles from Seres. From that point it becomes a mountain track suitable for horse transport only. For alternative routes to Karaköi from Demir Hisar and to Lyalovo from Marnopole, see Routes 107, 108.

miles	
0	<b>Seres</b> , alt. 164 ft. Road leaves on E. side of town, and leads NNE., ascending and following the ridge between the Banitsa and Brodska (Kapakli Planina).
4 $\frac{1}{4}$	<b>Dutli</b> , alt. 558 ft. Road ascends steeply.
8 $\frac{3}{4}$	Alt. 3,130 ft. Road still ascends.
11 $\frac{3}{4}$	Summit, alt. 3,435 ft. Road now begins to descend, degenerating into a track.
14	Alt. 3,041 ft. Bridge over the <b>Brodska</b> . Road ascends valley of Brodska by l. bank.
16 $\frac{1}{4}$	<b>Dolnyi Samakov</b> .
16 $\frac{3}{4}$	Ascend valley of small tributary.
18 $\frac{1}{2}$	<b>Gorni Brodi</b> , alt. 3,609 ft. Track climbs NW.

miles

- 21 Track turns NE. to watershed.
- Alternative track continues N. and joins track from **Demir Hisar** and **Krushevo**,  $1\frac{3}{4}$  miles above and W. of **Karaköi** (see Route 107 at mile  $18\frac{1}{4}$ ).
- $21\frac{3}{4}$  Summit of ridge, alt. 4,649 ft. Track bends E., then N., descending steeply.
- $24\frac{1}{2}$  The Demir Hisar-Karaköi track joins the route (see Route 107 at mile  $19\frac{1}{2}$ ).
- 25 **Karaköi**, alt. 2,631 ft., on headwaters of Lisa, with mines. Track proceeds N. by E. over low watershed and frontier.
- $28\frac{1}{2}$  Crest of ridge, alt. 2,339 ft.: track descends into Mutnitsa valley; then crosses another low ridge NNE.
- 31 Track from **Marnopole** (Route 108 at mile 23) enters from WSW.
- 32 Alt. 2,067 ft. Track ascends valley NNE.
- 35 **Lyalovo**, alt. 2,559 ft.
- $36\frac{1}{2}$  Track crosses ridge, and descends into valley of tributary of Myesta.
- $40\frac{1}{2}$  **Musomishta**.
- 42 **Nevrokop**, alt. 1,853 ft.

## ROUTE 101

NEVROKOP—RAZLOG—JUMA'-I-BALA, 62 miles

This road is reported to have been recently reconstructed, but some informants deny this as far as the section Razlog-Juma'-i-Bala is concerned. The section Nevrokop-Dobrinishte, being part of a new chaussée from Nevrokop *via* Yakoruda to Banya and Tatar Bazarjik (see Route 102), is reported to be in good condition, and fit for motor transport and heavy artillery. The section Dobrinishte-Juma'-i-Bala

is described as a good new road, fit for wheeled traffic : it is a 12 hours' drive (January 1916). The route is important, giving a third line of advance (parallel to those up the Vardar and Struma valleys) from N. Greece into Bulgaria.

For the Seres-Nevrokop road, of which this is a northward continuation, see Route 100.

The details given below, being taken from maps in which the route is represented as a track only, should be used with caution.

miles

0	<b>Nevrokop</b> , alt. 1,853 ft. Road leads NNE. towards the head of the small plain in which Nevrokop is situated.
1 $\frac{3}{4}$	Alt. 1,754 ft. Road turns N. by W.
3	Foot of <b>Myesta</b> gorge, the W. bank of which the road follows, rising gradually.
4 $\frac{1}{4}$	<b>Tsiropole Han</b> , alt. 1,857 ft.
5	<b>Gornye Tsiropole</b> , on opposite bank of river. Many springs by road for about 2 $\frac{1}{4}$ miles in this section of route.
6 $\frac{3}{4}$	<b>Tsiropole Kalesi</b> .
8	<b>Atesh</b> spring.
11 $\frac{3}{4}$	<b>Kremen Han</b> , alt. 2,149 ft. Kremen village 1 $\frac{1}{2}$ mile NW.
13	Bridge over Kremen stream. Alt. 2,218 ft.
14	Branch track by bridge over Myesta (the only bridge over it N. of Nevrokop) to <b>Filipovo</b> , 1 $\frac{1}{4}$ miles SSE.
An alternative track here diverges NW. to <b>Obidim</b> (3 miles), and then runs along the side of the hills W. of the Myesta in a general NNW. direction to <b>Dobrinishte</b> (8 miles).	
17 $\frac{1}{4}$	Alt. 2,349 ft.
20 $\frac{1}{4}$	<b>Lushin Han</b> , alt. 2,385 ft. Road turns sharply l. up a side valley.
23 $\frac{1}{2}$	<b>Dobrinishte</b> , alt. 2,865 ft.

miles

There is an alternative route, very hilly, but reported fit for wheeled traffic, from Nevrokop to Dobrinishte, over the hills on the W. bank of the Myesta valley. It leaves Nevrokop in a N. direction, and then proceeds in a general NNW. direction by Kornitsa (6 miles), Bryeznitsa ( $7\frac{1}{2}$  miles), and Haremi (18 miles), reaching Dobrinishte in  $22\frac{1}{2}$  miles.

From Dobrinishte the main road to Yakoruda (see Route 102) proceeds NNW., while the present route turns first WSW., and then crosses the hills in a general NW. direction to—

27 $\frac{1}{2}$  **Bansko** on the r. bank of the Istok.

Road proceeds NNE.  $1\frac{1}{4}$  miles (towards Banya), then NNW. across river Istok to—

31 $\frac{1}{2}$  **Razlog** (Mehomia), alt. 2,713 ft., at the confluence of several streams with the Rablovo, and in the W. corner of the fan-shaped head of the Myesta valley.

Road continues 4 miles in W. by S. direction up r. bank of Rablovo, then turns N. crossing to l. bank, then W. by N. climbing to the watershed at the head of the valley.

39 **Pryedel Han**, alt. about 3,280 ft.

From this point the road turns N. for 2 miles, descending into the valley of the **Kara Ali**, a tributary of the Oseno, which it follows.

47 $\frac{1}{2}$  At the confluence of the Kara Ali and **Oseno** the road bifurcates.

An alternative road continues in a WSW. direction down the Oseno valley till it reaches its confluence with the Struma opposite **Simitlii** at 5 miles. From this point there is a track up the l. bank of the Struma joining the main Demir Hisar-Juma'-i-Bala road at the bridge 3 miles N. of Simitlii (see Route 98 at mile  $74\frac{1}{2}$ ).

miles

- |     |  |
|-----|--|
|     | Route turns N. up a ridge between two small tributaries of the Oseno.  |
| 52½ | The road crosses the ridge of <b>Arisbanitsa</b> , alt. 4,520 ft., and turns in a general WNW. direction down a spur between two small tributaries of the Struma, till it reaches the foot-hills above Juma'-i-Bala. |
| 62  | <b>Juma'-i-Bala</b> , alt. 1,342 ft.   |

## ROUTE 102

NEVROKOP—DOBRINISHTÉ—YAKORUDA—BANYA  
—TATAR BAZARJIK, 90¾ miles

This is a newly-constructed chaussée, reported fit for motor transport throughout, and providing an important means of communication between the Myesta and Maritsa valleys, and a third line of advance, parallel to those up the Vardar and Struma valleys, from N. Greece into Bulgaria.

For the Seres-Nevrokop road, of which this is a continuation northwards, see Route 100.

miles

- |     |   |
|-----|---|
| 0   | <b>Nevrokop</b> , alt. 1,853 ft. To Dobrinishte (23½ miles) the road is the same as that described under Route 101.       |
| 23½ | From <b>Dobrinishte</b> the road proceeds in a general NNW. direction, climbing the hills W. of the upper Myesta valley.  |
| 26  | Summit of ridge, alt. 2,988 ft. : road descends into valley of Konushitsa, which flows N. into the Rablovo.               |
| 28½ | <b>Bashiya</b> , alt. 2,673 ft. Road turns NNE.   |
| 29½ | Cross the <b>Rablovo</b> , alt. 2,522 ft. Road winds along foot-hills NW. of the confluence of the Izvor with the Myesta. |
| 33½ | Alt. 2,559 ft. Road bends SSE., then follows up W. bank of Myesta N. by E.  |



miles

- 35½ Alt. 2,643 ft. **Dagoniya** on farther bank of Myesta, which is here close to road.
- 38½ Cross to E. bank of Myesta, and follow it closely NNE. Alt. 2,753 ft.
- 42 **Yakoruda**, alt. 3,015 ft.
- 43 Recross to W. bank.
- 45½ Recross to E. bank, alt. 3,202 ft. Road turns ESE., crosses a tributary of the Myesta, and ascends the valley of the **Drashtanitsa** first ESE., then in a general E. direction.
- 52½ Road crosses watershed between Myesta and Maritsa valleys ½ mile S. of **Avramova Kula**, alt. about 4,000 ft., and descends E. by S. into the upper valley of the Yablonitsa, which it follows closely to Banya.
- 59½ Road turns ENE.
- 62 **Banya** (Chepinska).  
Road continues in N. direction.
- 63½ **Lözhené**. A road branches N. by W. to **Kamenitsa**, 1¼ miles. Main road turns ENE. crossing a valley.
- 64½ Cross the **Mutnitsa**.
- 65 A road fit for motor transport branches E. by S. across the valley. At 2 miles it crosses the Mutnitsa, and turning SE. skirts the hills to the S. At 5½ miles it passes **Rakitovo**, and crosses a range of hills. At 8 miles it reaches a valley which it crosses, and at 11½ miles it joins the Nevrokop-Peshtera road (see Route 103 at mile 45).
- Route continues E. by N., ascending the hills obliquely.
- 68 Road turns in a general N. direction and ascends the W. slopes of the Kashnitsa hill in zigzags.
- 70½ Summit. Road now begins to descend, and after several zigzags reaches the valley of a tributary of the Elli Dere, down the l. bank of which it proceeds.

miles

73 $\frac{1}{4}$ 

Cross the **Elli Dere** just above its confluence with the tributary mentioned above.

73 $\frac{1}{2}$ 

Road turns NE. down the l. bank of the Elli Dere.

75 $\frac{1}{4}$ 

**Edrinski Han.**

78

Cross to r. bank of Elli Dere.

79

Recross to l. bank.

79 $\frac{1}{2}$ 

Mouth of valley.

A road branches NW. to **Karvara** (Varvara) 1 mile; it then proceeds N.; at 3 $\frac{1}{4}$  miles it crosses the Samokov-Tatar Bazarjik road (see Route 117 at mile 35 $\frac{3}{4}$ ), and at 4 $\frac{1}{2}$  miles reaches **Sarambey** railway station.

Route continues NE., crossing the Elli Dere, which here flows N. by E.

80 $\frac{1}{4}$ 

**Elli Dere**, village E. of road.

82 $\frac{3}{4}$ 

**Lözhene.** Road joins the Samokov-Tatar Bazarjik road (see Route 117 at mile 37 $\frac{3}{4}$ ), along which the route proceeds to—

90 $\frac{3}{4}$ 

**Tatar Bazarjik.**

## ROUTE 103

NEVROKOP—DOSPAD HAN—BATAK—PESHTERA,  
57 miles

This route is reported to have been recently reconstructed, and to be fit for motor transport; but beyond Satovitsa (mile 15) the country is so difficult that it may be doubted whether this report is true. The details given are taken from maps in which it is marked only as a track, and should, therefore, be used with caution. If it has been reconstructed, the road would provide a valuable line of communication, roughly parallel to the Nevrokop-Yakoruda-Banya road (see Route 102) between the Myesta and Maritsa valleys.

miles

- 0      **Nevrokop**, alt. 1,853 ft. Leave by Drama road.
- 1 $\frac{1}{4}$       Route leaves the Drama road (see Route 122 at mile 65 $\frac{1}{4}$ ) and strikes E., following an affluent of the Myesta, on which Nevrokop stands.
- 4 $\frac{1}{2}$       Cross the **Myesta** (which here divides into two arms enclosing an island) by two bridges  $\frac{1}{4}$  mile SE. of confluence. Alt. 1,696 ft. Road turns NE.
- 6      Cross stream and ascend over ridge into valley of **Alliye** (Diran).
- 7 $\frac{1}{4}$       Alt. 2,112 ft. Cross stream (bridge) and ascend hills E.
- 8      **Dobren**. Road proceeds NE. and winds round spur to E.
- 9 $\frac{1}{4}$       **Krushevo**, alt. 3,480 ft. Road turns NNE. following slopes of hills above r. bank of Bistritsa.
- 10 $\frac{1}{2}$       Alt. 3,399 ft.
- 11 $\frac{3}{4}$       **Dolyan**, alt. 3,379 ft. Road turns E. with general downward tendency.
- 13      Cross affluent of Bistritsa.
- 13 $\frac{3}{4}$       Cross **Bistritsa** and ascend hills to E.
- 14 $\frac{1}{2}$       Summit of ridge, alt. 3,422 ft. Road descends.
- 15      **Satovitsa**, alt. 3,281 ft.
- 15 $\frac{3}{4}$       Dospad-Dovlen road (Route 104) diverges ESE. Route takes general NNE. direction.
- 16      Cross stream. Road ascends.
- 17 $\frac{1}{2}$       Road bifurcates.

Alternative track branches NE. At  $\frac{3}{4}$  mile it crosses head of small stream and ascends a ridge. At 1 $\frac{3}{4}$  miles it crosses a second stream and another ridge into valley of the Ponikova. At 2 miles reaches stream. **Bichakji** village  $\frac{1}{4}$  mile E. on ridge. Track turns up the valley of the stream for  $\frac{3}{4}$  mile and then ascends the hills to the W. in NW. direction, rejoining main road in 3 $\frac{1}{4}$  miles at mile 20 $\frac{1}{4}$ , below.

Route continues NNE., ascending rapidly.

miles

19 $\frac{1}{2}$ 

**Karaul Chairjik**, alt. 4,997 ft. Road turns NE., still ascending.

20 $\frac{1}{4}$ 

Alternative track described under mile 17 $\frac{1}{2}$  rejoins.

20 $\frac{1}{2}$ 

Alt. 5,164 ft. Road begins to descend into valley of the Dospad.

21 $\frac{3}{4}$ 

Alt. 4,997 ft.

23 $\frac{1}{4}$ 

Alt. 4,049 ft.

24

Road crosses **Dospad** river by a bridge.

24 $\frac{3}{4}$ 

**Dospad Han**, alt. 3,931 ft.

A branch road reported fit for motor transport leads SSE. down the Dospad valley to **Dospad** (6 miles; see Route 104 at mile 24 $\frac{3}{4}$ ).

Route ascends hills to N. of river in zigzags in general NNE. direction.

25 $\frac{3}{4}$ 

Top of ridge. Road descends into small valley.

26 $\frac{1}{2}$ 

Cross stream and again ascend.

27 $\frac{1}{4}$ 

Alt. 5,207 ft. Road crosses ridge and descends to valley of the Pazarli Dere.

28 $\frac{1}{2}$ 

Cross **Pazarli Dere**, alt. 5,115 ft. Road now takes NNW. direction up valley of small stream.

29

Cross stream, alt. 5,161 ft., and climb hills to N. of stream.

30 $\frac{3}{4}$ 

Summit of **Dospad** Pass. Road turns NNE.

33 $\frac{1}{4}$ 

Road crosses the **Kriva Reka** and follows its valley.

34 $\frac{3}{4}$ 

Road turns NW. up another stream.

35 $\frac{1}{4}$ 

Cross stream. Road turns NNE.

35 $\frac{3}{4}$ 

Cross another stream and proceed up small side valley.

36 $\frac{1}{2}$ 

Road turns N. and ascends hills following a ridge.

40 $\frac{1}{4}$ 

**Semer Alan**, alt. 6,306 ft.,  $\frac{1}{4}$  mile to NW.

Road begins to descend along ridge between two streams.

45

Branch road, reported fit for motor transport, runs NW. across the hills to **Rakitovo** (6 miles) and to the

miles

Nevrokop—Banya—Tatar Bazarjik road,  $11\frac{1}{2}$  miles (see Route 102 under mile 65).

Route turns SE. and then NE. into valley of the **Stara Batashka**.

$46\frac{1}{2}$  **Batak** village, scene of massacre in 1876.

$48\frac{3}{4}$  Cross to E. bank of stream.

$51\frac{1}{2}$  Recross to W. bank.

53 Road runs E. by S. for 1 mile.

54 Recross to E. bank and turns NE.

57 **Peshtera**, alt. about 1,230 ft.

## ROUTE 104

NEVROKOP—DOSPAD—DOVLEN,  $44\frac{1}{4}$  miles

This is a newly-constructed military road, reported as  $9\frac{3}{4}$  ft. wide, with a good surface, and capable of carrying motor transport. The route is marked in the maps as a track only as far as Badulin,  $2\frac{1}{2}$  miles short of Dospad, from which point it becomes a road. In the absence of more precise information it seems probable that the route here described is followed by the new road. But the details given for the Nevrokop—Badulin section should be used with caution.

miles

0 **Nevrokop**, alt. 1,853 ft. The route follows the Nevrokop—Dospad Han—Batak route (see Route 103, miles 0– $15\frac{3}{4}$ ).

$15\frac{3}{4}$  Route diverges ESE. from Route 103.

$16\frac{3}{4}$  **Kochen**, on the Dzhidzhovo stream. Road now proceeds ENE.

$17\frac{1}{2}$  Alternative track climbs NE. to **Maruleva** (1 mile), then crosses a wide spur to **Osina** ( $3\frac{1}{2}$  miles), whence it turns SE. and regains the main track at **Lyubche** ( $4\frac{1}{2}$  miles).



miles

- Road crosses spur lower down in E. by N. direction.  
 19 $\frac{3}{4}$  Cross **Ponikova** stream.  
 20 $\frac{1}{4}$  **Lyubche**. Alternative track rejoins from NW.  
 Main road crosses another small spur SE. to—  
 21 $\frac{1}{2}$  **Badulin**, alt. 3,117 ft. Track from Drama enters  
 from S. (see Route 123 at mile 41 $\frac{1}{2}$ ).  
 24 Cross the **Dospad** and ascend hills E. of river.  
 24 $\frac{3}{4}$  **Dospad**, alt. 3,831 ft., 200 Pomak houses. Well-  
 wooded country (pines) NE.

To **Dospad Han** on Nevrokop-Batak road (see Route 103 at mile 24 $\frac{3}{4}$ ) there is reported to be a new military road, fit for motor traffic, running in a general NNW. direction up the Dospad valley (6 miles).

- From Dospad road runs E. across a series of ridges.  
 26 $\frac{1}{2}$  **Kasimitsa**, S. of track.  
 28 $\frac{1}{2}$  Road turns N. up small valley.  
 29 $\frac{3}{4}$  Road turns E.  
 31 Alt. 4,319 ft. immediately S. of road. General  
 direction NE., winding and undulating road, over  
 easy hills with scattered patches of pine-forest, grass-  
 land, and cultivation.  
 34 **Karabulak**. Pomak village, with telegraph.  
 42 Road zigzags down to the **Domuz Dere**.  
 44 $\frac{1}{4}$  **Dovlen**, Pomak village, with telegraph to Tamrash,  
 Nevrokop, and Pashmakli. Formerly Turkish frontier  
 station with barracks, hospital, and transport stables.  
 For new military road to Pashmakli, see Route 128.  
 1 mile E. of Dovlen the Domuz Dere and Lija unite  
 to form the river Krichima. Alt. 2,282 ft. From this  
 point there are tracks leading N. across mountains  
 to Peshtera, Bratsigovo, and Krichim, whence roads  
 lead to Tatar Bazarjik and Philippopolis (see  
 Routes 105, 106).

## ROUTE 105

## PESHTERA—TATAR BAZARJIK, 12 miles

This is reported to be a chaussée fit for motor transport throughout ; but the information is uncertain (March 1916). The route runs in a general N. direction. For the road from Nevrokop via Batak, of which this is a northern continuation, see Route 103.

miles

0      **Peshtera.** Ascend hills on N. bank of **Stara Peshterska.**

$2\frac{1}{2}$       Alt. 1,798 ft. Road begins to descend into shallow valley.

$3\frac{3}{4}$       **Radilovo.** Road again ascends a short distance, then begins to descend.

$7\frac{1}{2}$       **Kochagovo** to W. of road. Road turns NNE.

$9\frac{1}{2}$       **Bashikarovo.**

Branch roads :—(i) SSE. to **Alikochovo** ( $3\frac{1}{4}$  miles) and **Bratsigovo** (see Route 106 at mile  $3\frac{3}{4}$ ) ; (ii) SW. to **Ajilare** ( $1\frac{1}{2}$  miles).

Road enters Maritsa valley.

$10\frac{1}{2}$       Road crosses railway. **Tatar Bazarjik** station immediately E. Alt. 669 ft.

$11\frac{3}{4}$       Route joins road from Samokov (see Route 117 at mile  $45\frac{1}{2}$ ).

Bridge over **Maritsa** on outskirts of town.

12      **Tatar Bazarjik.**

## ROUTE 106

PESHTERA—PHILIPPOPOLIS, 26 $\frac{1}{2}$  miles

This is a chaussée, reported as fit for motor transport throughout, and a continuation of the Nevrokop-Batak-Peshtera road (see Route 103).

miles

- 0      **Peshtera.** Road follows NE. direction, and crosses spur.
- 2      Cross **Stara Peshterska** (called Vacha lower down) and follow valley down r. bank.
- 3 $\frac{3}{4}$       Branch roads: (i) SE. across hills to **Bratsigovo** (2 $\frac{3}{4}$  miles); (ii) N. by W. across **Peshterska** and hills to **Alikochovo** (4 miles) and **Bashikarovo** (8 miles) on Peshtera-Tatar Bazarjik road (Route 105 at mile 9 $\frac{1}{2}$ ).
- 5 $\frac{1}{4}$       **Byega.** Valley widens. There is some rice cultivation.
- 8 $\frac{1}{4}$       **Aidinovo.** Road crosses stream. Branch road S. by W. to **Kozarsko** (2 miles). River turns SE.: main road continues across plain.
- 9 $\frac{1}{2}$       Road begins to ascend spur running S. to river.
- 10      Summit of ridge: road begins to descend.
- 11 $\frac{1}{2}$       **Novoselo**, on l. bank of Vacha (**Stara Peshterska**). Cross river.
- 12      A branch road NNE. along r. bank of river to **Krichim** (Kirichin) station on Sofia-Adrianople railway (2 miles).
- 13 $\frac{1}{4}$       Another branch road SSW. up Krichima valley to **Krichim** (6 miles).  
Route traverses marshy country.
- 15 $\frac{1}{2}$       Another branch road WNW. to **Krichim** station (2 $\frac{1}{2}$  miles).
- 16 $\frac{1}{2}$       Cross the **Krichima**.
- 17      **Kara Tair**, NW. of road. A branch road SSW. to

miles

**Pistusha** and **Perushtitsa** (5 miles) ; main road follows Krichima valley.

19 Cross railway at **Kadiyevo**. Road turns E. down Maritsa valley through swampy country (rice fields).

26½ **Philippopolis**, alt. 528 ft. at railway station.

## ROUTE 107

DEMIR HISAR—KARAKÖI, 20 miles

This route consists of a track which leads up the valley of the Valovishka Belitsa in a general NE. direction. It appears to be only fit for mule transport, but information of March 1916 speaks of an unconfirmed report that a road is under construction.

miles

0 **Demir Hisar**. Track leaves Demir Hisar in a NNE. direction, running up the l. bank of the river.

2½ **Dzherman**,  $\frac{3}{4}$  mile W. on opposite side of valley. Track turns NE.

6½ Track crosses to r. bank of river.

8 **Tservishta** village,  $\frac{3}{4}$  mile to SE. on opposite slope of valley ; a track leads to it.

11 Track crosses to l. bank and turns N. up a side valley.

12 **Krushevo**, alt. 1,680 ft. Track turns NE. across a spur and descends into the valley of the **Valovishka Belitsa**.

12¼ Track crosses the river and undulating country in an ENE. direction.

16¼ Summit of track, which now begins to descend.

18¼ An alternative track from the Seres–Nevrokop track (Route 100 under mile 21) enters from S.

19 Track crosses a small stream.

19½ Track joins the Seres–Nevrokop track (see Route 100 at mile 24½), along which it proceeds.

20 **Karaköi**, alt. 2,631 ft.

## ROUTE 108

## MARNOPOLE—LYALOVO, 27 miles

This track is reported fit for wheeled traffic, and forms a line of communication between the Struma and Myesta valleys, continuing the line of the Strumitsa-Petrich road eastwards, roughly parallel to the road *via* Melnik (Route 109). 4 miles S. of Lyalovo it joins the Seres-Nevrokop road (Route 100).

miles

- |                 |  |
|-----------------|--|
| 0               | From the junction of the Seres-Juma'-i-Bala and Petrich-Juma'-i-Bala (see Route 98, miles 31 and 34) roads, $\frac{3}{4}$ mile NE. of Karasu bridge and 2 miles SSE. of <b>Marnopole</b> , the track runs N. |
| 1               | <b>Dolnya Spancha</b> (Spanchevo). Track turns E.  |
| $2\frac{1}{4}$  | <b>Viraniya</b> . Track turns NE.  |
| 4               | <b>Katuntsi</b> . Track crosses valley of tributary of Struma, and turns E. up valley of the Goleshevo.  |
| 6               | <b>Kalimantsi</b> . Track climbs a spur ESE.   |
| 9               | <b>Yanovo</b> .  |
| $10\frac{1}{4}$ | <b>Petrovo</b> , with iron mine. Track crosses a col ENE., then turns ESE.   |
| 12              | <b>Goleshevo</b> , S. of track.  |
| $16\frac{1}{2}$ | Track, still ascending ESE., reaches watershed (alt. about 4,000 ft.) and descends, turning to ENE.  |
| $19\frac{1}{2}$ | <b>Paril</b> .   |
| $21\frac{1}{2}$ | <b>Gaitaninovo</b> .   |
| 23              | Track enters Seres-Nevrokop road (Route 100 at mile 31) 1 mile SE. of <b>Leki</b> .  |
| 27              | <b>Lyalovo</b> , alt. 2,559 ft.  |



## ROUTE 109

KARASU BRIDGE—MELNIK—NEVROKOP, 31½ miles

This road has recently been remade, large numbers of Serbian prisoners being employed on the work, and is reported as capable of bearing any weight (January 1916). It is an important route, as providing a line of communication between the Struma and Myesta valleys. The details given below, being taken from maps in which the route is represented as a track only, should be used with caution.

miles

0 This road diverges N. from the Demir Hisar-Juma'-i-Bala road, opposite the entrance of the chaussée from Petrich (see Route 98 at miles 31 and 34),  $\frac{3}{4}$  mile ENE. of Karasu bridge.

1 **Dolnya Spancha** (Spanchovo). Road turns N. by W.

3½ Road joins another track from Juma'-i-Bala road, and turns E. by N.

4 **Kapatovo**.

5¼ Road turns N.

6½ **Zevzili**, alt. 804 ft.

9 **Melnik**, alt. 1,214 ft.

According to information of March 1916 a good mule-track leads from here to Razlog *via* Lake Papa.

10½ Road turns ESE.

11¾ **Lebovitse**. Road crosses several spurs in E. by S. direction.

14¾ **Gornya Spancha**, alt. 1,001 ft. Road climbs ENE. up the ridge between the Bistritsa and Dobrolaka valleys.

16 Alt. 2,156 ft.

18½ Alt. 2,792 ft. Branch track NE. to **Perin**, 1¼ miles, with mines.

miles

20 $\frac{1}{4}$       Alt. 3,645 ft. Well. Road winds round hill-side  
N. of Dobrolaka valley.

22 $\frac{1}{4}$       Alt. 4,541 ft.

24      Head of Dobrolaka valley, and watershed, alt.  
4,718 ft.

An alternative track from this point leads ENE.  
to **Ola Kulbeleri** (1 $\frac{1}{4}$  miles), SE. to **Aktoprak** (3 $\frac{1}{4}$  miles),  
and thence NE. to an alt. of 5,856 ft. (5 $\frac{1}{2}$  miles), and  
descends steeply in the same direction to **Nevrokop**  
(8 miles).

28 $\frac{1}{4}$       Road descends by a small steep valley NNE. by  
**Dagh Chiftlik**.

31 $\frac{1}{2}$       **Nevrokop**, alt. 1,853 ft.

## ROUTE 110

### KRYESNA DEFILE—RAZLOG, 20 miles

This is only a mountain route, reaching an altitude of over 6,560 ft., but, like the Melnik-Nevrokop route, it has some importance as a link between the Struma and Myesta valleys.

There are several tracks from the Struma valley at the lower end of the Kryesna defile, leading up the Kirkitsa and Seytan Dere valleys. These tracks unite a little south of **Hustava**. The track then climbs ENE. to **Keshish Mandra**, and crosses the watershed, alt. over 6,560 ft. It then descends NE. into the Rakovitsa valley, which it follows to **Razlog**, about 20 miles from the road up the Struma valley (see Route 98).

## ROUTE 111

KOCHERINOVO—RILA—SAMOKOV,  $40\frac{3}{4}$  miles

As far as Rilski Monastir the route is a chaussée, fit for motor transport. Then it becomes a track to the pass over Popova Shapka (reaching the unusual height of over 8,000 ft.), whence another section of chaussée leads to Samokov. It is likely that an attempt will be made to complete this important route as a chaussée throughout, but it is not known whether this has yet been done.

miles

- |                 |   |
|-----------------|---|
| 0               | <b>Kocherinovo</b> is a village (with tobacco cultivation) at mile $5\frac{1}{2}$ on the Juma'-i-Bala-Sofia road (see Route 99). The road runs in a straight line NE. along the foot of hills rising NW. of the Rilska valley.  |
| $1\frac{1}{4}$  | Alt. 1,387 ft.  |
| $1\frac{3}{4}$  | A road branches SE. to <b>Stob</b> village (1 mile) on farther bank of stream.  |
| 4               | Outskirts of <b>Rila</b> . A road branches WSW. and crosses hills NW. to <b>Smochevo</b> ( $3\frac{1}{2}$ miles).   |
| $4\frac{1}{2}$  | <b>Rila</b> , alt. about 2,000 ft., pop. 2,654.   |
| $5\frac{1}{4}$  | Road crosses to l. bank of the Rilska and turns E., following the stream closely to Rilski Monastir up a narrow valley, the slopes of which are covered with rich vegetation. The hills on either side are often of a sugar-loaf formation, rising to a height of more than 3,000 ft. There are small patches of cultivation in the immediate neighbourhood of the monasteries. |
| $5\frac{3}{4}$  | Road recrosses to r. bank.  |
| 7               | Road crosses to l. bank.  |
| 9               | Road recrosses to r. bank.  |
| $9\frac{1}{2}$  | <b>Pastra</b> .   |
| $10\frac{3}{4}$ | Alt. 2,736 ft.  |
| 15              | Road and valley turn NE. The <b>Iilina</b> enters from ESE.   |
| 17              | <b>Rilski Monastir</b> , the celebrated Rila monastery, the   |

miles

religious centre of Bulgaria, with church, tower, and other buildings, including an ancient armoury, also P.O. and tel. station; much visited by tourists and pilgrims. Alt. 3,822 ft. From this point onwards the route becomes a track.

18½ Monastery of Sveti Luka ¼ mile to N.

20½ Track leaves the Rilska. Track winds up hills ENE.

22 **Yezero Suho**, small lake, S. of road.

23½ Track crosses a marshy plateau SE. of the **Popova Shapka**, between two outlying spurs, and turns NNE. along the slopes of the Popova Shapka, still ascending.

24½ Track again becomes a road and zigzags upwards in a general N. direction.

26¾ Summit of **Popova** pass, alt. 8,124 ft. Road descends in a general N. direction with many windings down a wooded spur.

33 **Govedarts**i, on the r. bank of the **Cherni Isker**, which the road follows in a NE. direction.

35 Road crosses a tributary of the Cherni Isker.

35¾ Alt. 3,491 ft.

36½ Branch road SE. to **Chamkoriya Banya** (7 miles) and then NE. to join the Samokov-Tatar Bazarjik road (14½ miles; see Route 117 at mile 10½).

The Samokov road crosses to l. bank of Cherni Isker and proceeds in a N. direction.

37½ The road leaves the hills and diverges from the river.

39¾ Alt. 3,169 ft.

40½ Road joins the Dupnitsa-Samokov road (see Route 113 at mile 24½). Cross the **Golem Isker** (bridge).

40¾ **Samokov**, alt. 3,054 ft.

From Samokov a road branches S. up a valley and then across the hills to **Chamkoriya Banya** (8 miles). See branch road mentioned under mile 36½ above.

## ROUTE 112

## KUSTENDIL—DUPNITSA, 23 miles

This is a chaussée fit for motor transport throughout, and part of the important through route from Kustendil via Samokov and Tatar Bazarjik (see Routes 113, 117) to the central Bulgarian plain.

miles

- 0      **Kustendil.** The Dupnitsa road branches ESE. from the Kustendil-Sofia road (Route 86) at the E. end of the town. It runs across low wooded hills overlooking the valley of the Struma, crossing several streams, tributaries of the Struma.
- $2\frac{3}{4}$       **Bagrentsi,**  $\frac{1}{2}$  mile N. of road.
- $5\frac{1}{4}$       Road approaches r. bank of the **Struma.**
- $7\frac{1}{4}$       Branch track S. to Carevo (see Route 91 A at mile 23).
- 8      Road crosses to l. bank of Struma (alt. 1,473 ft.), and turns E. along the river.
- $10\frac{1}{2}$       Road leaves the Struma valley and turns NE. up the valley of a tributary.
- 13      Road leaves the valley and ascends hills to E. in a NE. direction, and then after going for a short distance SE. turns E.; winding across the hills.
- 15      Road begins to descend into the valley of the Verbovka, which it follows in an E. direction. Alt. 2,241 ft. on small hill immediately N. of road.
- 18      Road crosses the **Verbovka.**
- $19\frac{1}{4}$       Road crosses the **Razmetanitsa.** The Verbovka flows into this river  $\frac{1}{2}$  mile NW. of this point. Alt. at confluence, 1,654 ft.

Branch road runs N. by W. *via* **Golemoselo** ( $1\frac{3}{4}$  miles), **Malkoselo** (3 miles), **Mlamolovo** ( $5\frac{1}{2}$  miles), **Bobovdol** ( $7\frac{1}{2}$  miles), and coal mines ( $9\frac{1}{4}$  miles), and to the Kustendil-Sofia road (see Route 86 at mile  $30\frac{1}{4}$ ).



miles

Road turns ESE., crosses a low spur, and runs down a small tributary valley into the valley of the **Dzhermen**.

21 $\frac{3}{4}$ 

Road crosses the **Dzhermen** (bridge).

22

Road enters the Juma'-i-Bala-Dupnitsa road (see Route 99 at mile 18 $\frac{1}{2}$ ), along which it turns NE. to—

23

**Dupnitsa**.

## ROUTE 113

DUPNITSA—SAMOKOV, 24 $\frac{1}{2}$  miles

This is a chaussée throughout, and is a section of the main and most direct route from the Serbian frontier to the Maritsa valley.

miles

0

**Dupnitsa**. The Samokov road branches from the Dupnitsa-Sofia road (see Route 99 at mile 21)  $\frac{1}{4}$  mile N. of the town and turns ENE. following the valley of the **Dzhermen** along its r. bank and rising gradually.

There is an alternative road (see Route 99 at mile 20 $\frac{3}{4}$ ) reported fit for motor transport, which branches ESE. from the Dupnitsa-Sofia road a little way N. of the town, and running along the slopes of the hills to the S. of the valley of the Dzhermen in a general E. by N. direction, passes through **Samoranovo** (1 $\frac{3}{4}$  miles), **Ryesilovo** (3 $\frac{1}{2}$  miles), **Ovchartsi** (5 miles), **Gornya Banya** (7 $\frac{1}{2}$  miles), **Gyurevo** (8 miles), and **Saparevo** (9 $\frac{1}{4}$  miles), where it turns N. and rejoins the main route (10 $\frac{1}{2}$  miles).

10

Alternative route mentioned above enters from S. Alt. about 2,160 ft. Road now rises more steeply and soon enters a gorge.

miles

- 13 Road bends SE.  
 14 Summit of pass, 3,435 ft. Road begins to descend the valley of the **Klisura** stream in an E. direction.  
 15 Road turns NE.  
 16 $\frac{3}{4}$  E. end of gorge. Road turns E. across an undulating plain, crossing several streams.  
 17 $\frac{1}{2}$  Alt. 3,051 ft.

A road branches N. to **Byelchinska Banya** (1 $\frac{1}{2}$  miles; alt. 2,956 ft.) and then WSW. to **Byelchin** (2 $\frac{3}{4}$  miles), and N. (crossing the Samokov-Radomir road, see Route 114 at mile 26 $\frac{3}{4}$ ) to **Alino** (5 $\frac{3}{4}$  miles).

- 19 $\frac{1}{4}$  Alt. 3,035 ft.  
 20 $\frac{3}{4}$  The Radomir-Sofia road (see Route 114 at mile 32 $\frac{3}{4}$ ) enters from NW.  
 24 $\frac{1}{4}$  The Kocherinovo-Rila-Samokov road (see Route 111 at mile 40 $\frac{1}{2}$ ) enters from SW.  
 The Sofia road enters from N. (see Route 115).  
 Cross the **Golem Isker** (bridge).  
 24 $\frac{1}{2}$  **Samokov**. Alt. 3,054 ft.

## ROUTE 114

RADOMIR—SAMOKOV, 36 $\frac{3}{4}$  miles

WITH BRANCH TO BISTRITSA

This road is a main line of communication throughout. From Radomir to the junction with the Juma'-i-Bala-Sofia road (10 $\frac{1}{2}$  miles) this road is capable in summer of carrying heavy traffic. It runs over open rolling country and there are no hills on it of severe gradient. The few bridges are of wood, not stone. The Bulgarian 1:50,000 map (1908) shows

the portion through the Verila Planina from its junction with the Juma'-i-Bala-Sofia road on for  $6\frac{3}{4}$  miles as an inferior road.

miles

- |                 |  |
|-----------------|--|
| 0               | <b>Radomir</b> , alt. about 2,300 ft. The road leaves the SE. corner of the town and runs SE. across undulating ground.  |
| 5               | <b>Provalenitsa</b> and <b>Gornyi Rakovets</b> , adjacent villages 1 mile to SW.   |
| 6               | Cross a tributary of the Blato.  |
| $7\frac{1}{4}$  | Cross another tributary of the Blato.  |
| $10\frac{1}{2}$ | Alt. 2,335 ft. Cross the Juma'-i-Bala-Sofia road. (See Route 99 at mile 34.) <b>Dolnya Dikanya</b> $\frac{3}{4}$ mile to SE. The Samokov road continues SE.  |
| 13              | Road turns ENE. and ascends a valley, which gradually contracts.   |
| $13\frac{3}{4}$ | Road turns E. up a gorge in the <b>Verila Planina</b> and ascends, winding a good deal as the crest of the ridge is approached.  |
| 18              | <b>Buka Preslap</b> , highest point and watershed, alt. 3,582 ft. The road now descends a spur steeply in zigzags in a general ENE. direction into the valley of the <b>Polakariya</b> , a tributary of the Golem Isker.   |
| $19\frac{1}{4}$ | The road now turns ESE. down the valley.   |
| 20              | Cross the <b>Palakariya</b> .  |
| 25              | The valley is here about $2\frac{1}{2}$ miles broad, alt. 3,057 ft. A road branches N. to <b>Popovyane</b> ( $1\frac{3}{4}$ miles), <b>Kovachevtsi</b> (3 miles), and then across very mountainous country to <b>Bistritsa</b> ( $15\frac{1}{2}$ miles) and <b>Sofia</b> (23 miles). |
| $26\frac{3}{4}$ | <b>Alino</b> , 1 mile N. of road, with which it is connected by a road from this point.<br><br>A road branches S. to <b>Byelchin</b> (2 miles) on the slopes of the S. side of the valley, and thence to Dupnitsa-Samokov road. (See Route 113 at mile $17\frac{1}{2}$ .)            |
| $28\frac{1}{4}$ | Alt. 2,974 ft. <b>Banya</b> 1 mile S. across the river.  |

miles

29 $\frac{3}{4}$ **Relyovo** N. of road. Road turns SE.30 $\frac{1}{4}$ Cross the **Palakariya**.32 $\frac{3}{4}$ Road joins the Dupnitsa-Samokov road, along which the route proceeds E. (See Route 113 at mile 20 $\frac{3}{4}$ .)36 $\frac{3}{4}$ **Samokov**, alt. 3,054 ft.

## ROUTE 115

SAMOKOV—SOFIA, 35 miles

WITH BRANCH TO VAKAREL

This is a good metalled road throughout, and an important line of communication. It admits of fast motor traffic all the way. All the bridges are of stone and substantially built (1915).

miles

0

**Samokov**, alt. 3,054 ft. The town being situated on the r. bank of the Golem Isker, the road crosses the bridge over the river and immediately turns down its l. bank.3 $\frac{3}{4}$ A track branches WNW. to **Shirokidol** (1 $\frac{1}{4}$  miles) on the banks of the Palakariya.4 $\frac{1}{2}$ 

Alt. 2,822 ft.

Tracks branch W. to **Shirokidol** (1 $\frac{1}{4}$  miles) and E. to **Zlokuchane** (1 mile) on r. bank of the Golem Isker. There is no bridge on this latter track.

From this point northward the valley narrows gradually.

6 $\frac{1}{2}$ 

Road crosses the **Golem Isker** (four bridges; the river flows in a number of channels) and turns NNE. The river continues N. for 1 mile and then turns NE. The hills on both sides close in on the river.

miles

8 $\frac{1}{2}$ 

A road branches E. At 1 $\frac{1}{4}$  mile it bifurcates: (i) one branch turning N. to **Gornyi Pasarel** (1 $\frac{3}{4}$  miles), whence after a detour to the SE. it turns NE. then N. and later ENE. and 5 miles from Gornyi Pasarel it again bifurcates, one branch going N. to Novi Han (see Route 141 at mile 15 $\frac{1}{2}$ ), while the other runs across the hills to **Vakarel** station (12 $\frac{1}{4}$  miles) on the Sofia-Adrianople railway and road (Route 141 at mile 23). (ii) The other branch runs E. to **Chamurli** (1 $\frac{1}{2}$  miles), where it again bifurcates: (a) one branch running NNE. for 3 $\frac{1}{2}$  miles to join branch (i) 2 miles beyond Gornyi Pasarel, and the other (b) SE. for 1 mile to join the Samokov-Ikhtiman road (see Route 116 at mile 9 $\frac{1}{4}$ ).

8 $\frac{3}{4}$ 

Road crosses again to r. bank of river and follows it closely.

9 $\frac{1}{4}$ 

**Kalkovo** (see Route 141 under mile 33 $\frac{1}{4}$ ). Road continues N. The valley broadens again.

11

**Gornyi Pasarel**,  $\frac{3}{4}$  mile to E. on opposite bank of river. No bridge. Road turns NNW. Valley begins to contract.

13 $\frac{1}{4}$ 

N. end of valley. The river turns NNE. up a gorge. The road continues in a general NNW. direction, ascending hills in a zigzag course.

13 $\frac{3}{4}$ 

Alt. 3,011 ft. Road begins to descend a ridge overlooking the river  $\frac{1}{4}$  mile to E., which presently resumes its NNE. direction after a detour to the E.

15

Road turns W., running along the lower slopes of hills overlooking the river. Valley broadens.

16

Road turns NW. The valley again becomes a gorge.

16 $\frac{1}{4}$ 

A road branches N. across the river (bridge) to **Dolnyi Pasarel** on opposite bank of river and then across the hills to **Gornyi Lozen** (5 $\frac{3}{4}$  miles) on the N. slopes of the hills. Thence NNW., descending gradually, to join the main Sofia-Adrianople road (see



miles

Route 141 at mile 7) 1 mile to the E. of the point where it crosses the Golem Isker.

Route continues NNW. down the gorge, which winds much.

20 $\frac{3}{4}$  Alt. 2,693 ft. to E. of road.

24 $\frac{3}{4}$  **Kokalyane**,  $\frac{3}{4}$  mile W. of road. The hills become less steep on the W., and the valley broadens somewhat. Road resumes its NNW. direction.

26 **Pancharevo**.

26 $\frac{3}{4}$  A track branches N., crosses the river (bridge), and then turns N. by E. to **Dzherman** ( $\frac{3}{4}$  mile), whence it proceeds as a road until at 2 $\frac{3}{4}$  miles it joins the Sofia-Adrianople road (Route 141 at mile 6 $\frac{3}{4}$ )  $\frac{3}{4}$  mile E. of the bridge over the Golem Isker.

Route now proceeds in a general N. direction across low-lying land close to the river.

28 $\frac{1}{2}$  **Gorublyane**.

29 $\frac{1}{4}$  Road joins the Sofia-Adrianople road (Route 141 at mile 5 $\frac{3}{4}$ )  $\frac{1}{4}$  mile W. of the bridge over the Golem Isker.

Route now turns NW. along this road to—

35 **Sofia**, alt. 1,746 ft.

## ROUTE 116

SAMOKOV—IKHTIMAN, 19 $\frac{3}{4}$  miles

This is a second-class road, reported fit for wheeled traffic.

miles

0 **Samokov**, alt. 3,054 ft. The road starts in a N. direction and runs between the foot of the hills and the r. bank of the Isker.

1 $\frac{3}{4}$  **Dragushinovo**.

miles

$3\frac{3}{4}$  **Zlokuchane.** The road turns NE., leaving the valley, and climbs up a spur of the hills.

$4\frac{3}{4}$  Alt. 3,129 ft. immediately N. of road.

$5\frac{3}{4}$  Road begins to descend wooded spur between two small streams in NNE. direction.

$8\frac{1}{2}$  Road turns E.  $\frac{3}{4}$  mile S. of **Chamurli**.

$9\frac{1}{4}$  Branch road NW. to Chamurli (1 mile), thence W. to the Samokov-Sofia road in the Golem Isker valley ( $3\frac{3}{4}$  miles) (see Route 115 at mile  $8\frac{1}{2}$ ). Road again ascends.

11 Cross ridge of **Kara Bair** and begin to descend.

$14\frac{3}{4}$  Road turns NE.

$16\frac{3}{4}$  **Zivkovo** (Avliköi). Road turns E. by S.

$17\frac{3}{4}$  Road crosses Sofia-Adrianople railway.

$19\frac{3}{4}$  **Ikhtiman**, alt. 2,067 ft., on the Sofia-Adrianople road (see Route 141 at mile  $33\frac{3}{4}$ ).

The station is 1 mile W. by S. of the town, and is reached by a road.

## ROUTE 117

SAMOKOV—TATAR BAZARJIK,  $45\frac{3}{4}$  miles

This is a first-class road, and a section of the important line of communication between the W. frontier of Bulgaria and the Maritsa valley, from Kustendil *via* Dupnitsa and Samokov to Tatar Bazarjik.

miles

0 **Samokov**, alt. 3,054 ft. The road starts in a NE. direction and climbs the hills on the r. bank of the Golem Isker (**Ikhtimanski Planina** forms the watershed between the Isker and Maritsa basins).

$2\frac{1}{2}$  Road crosses ridge (alt. 3,499 ft.  $\frac{3}{4}$  mile N. of road), and turns ESE. and winds down into upper valley of the **Sinochnitsa**.

miles

- 3 $\frac{3}{4}$  **Shipochane.** Road turns NNE., crosses the Sinochnitsa, and ascends another ridge in ENE. direction.
- 5 $\frac{3}{4}$  Summit of ridge, alt. 3,428 ft.,  $\frac{1}{2}$  mile N. of road, which now winds down the valley of a tributary of the Maritsa in a SE. direction.
- 10 $\frac{1}{2}$  Branch road S. to **Chamkoriya Banya**, 7 $\frac{1}{4}$  miles, **Bel Isker**, 13 $\frac{1}{4}$  miles, and Kocherinovo-Samokov road, 14 $\frac{1}{4}$  miles (see Route 111 at mile 36 $\frac{1}{2}$ ).
- 12 Road crosses **Maritsa**, here a small stream.
- 13 $\frac{1}{2}$  **Dolnya Banya.** Road follows down the r. bank of the Maritsa in E. direction, with low hills to S.
- 18 Branch road SSW. to **Kostenets** (3 miles).
- 18 $\frac{1}{2}$  **Banya-Kostenets** station on Sofia-Adrianople railway. A track follows railway NE. and joins the Sofia-Adrianople road, 6 miles (see Route 141 at mile 38 $\frac{1}{2}$ ).
- 19 $\frac{1}{4}$  Road passes under railway and follows it closely on its NE. side in a SE. direction, running between it and the Maritsa.
- 22 Road crosses railway, and recrosses  $\frac{1}{4}$  mile farther on.
- 23 $\frac{3}{4}$  Road recrosses railway.
- 24 $\frac{1}{2}$  **Sestrimo** station: village 2 $\frac{1}{2}$  miles S. by road.
- 25 $\frac{1}{2}$  Road twice crosses railway.
- 27 $\frac{1}{4}$  **Momina Klisura.** Road recrosses railway.
- 28 Road recrosses railway.
- 29 **Byelovo** station: village 1 $\frac{3}{4}$  mile SW. by track.
- 30 $\frac{1}{4}$  Road diverges gradually from railway, and enters marshy plain of Tatar Bazarjik.
- 35 $\frac{3}{4}$  Branch road N. to **Sarambey** station (1 $\frac{1}{4}$  mile) and S. to the Banya-Tatar Bazarjik road (see mile 37 $\frac{3}{4}$  below).
- 37 $\frac{1}{4}$  Cross **Elli Dere** (3 branches).
- 37 $\frac{3}{4}$  **Lözhehe.** Nevrokop-Banya-Tatar Bazarjik road (see Route 102 at mile 82 $\frac{3}{4}$ ) enters from SW.
- Road now runs through rice-fields all the way to Tatar Bazarjik.

miles

40 $\frac{1}{2}$ 

Cross railway.

45 $\frac{1}{2}$ 

Road from Peshtera (see Route 105 at mile 11 $\frac{3}{4}$ ) enters from S.; 1 $\frac{1}{4}$  mile along this road is Tatar Bazarjik station.

45 $\frac{3}{4}$ 

Road crosses **Maritsa** by bridge.  
**Tatar Bazarjik.**

## ROUTE 118

SALONICA—PAZARKIA—CHAI AGHIZI, 55 $\frac{1}{2}$  miles

This is the western part of the great ancient route along the N. coast of the Aegean. The *Via Egnatia* of Roman times followed this line. It is reported traversable throughout by wheeled traffic. The first 7 miles, from Salonica to Asbestochorion, are marked on the Greek map as a carriage road.

miles

0

**Salonica.** Road runs due N.

2

Road bends in an easterly direction passing over hilly country.

7

**Asbestochorion.** Route then passes over the N. slopes of a hill.

12

**Hagios Vasilios** (Aivasil) village on the S. shore of Lake Langaza.

15

**Lutziki.**

16

**Gerakaron.** Road crosses stream flowing into Lake Langaza.

17 $\frac{1}{4}$ 

**Langavuk** (Langadikia). Branch track N. to **Klisali** (see Route 156 at mile 9 $\frac{1}{2}$ ). Road crosses two streams.

18 $\frac{1}{4}$ 

**Verenos.** From here the road runs for many miles along the N. slopes of the hills.

20 $\frac{1}{4}$ **Gomonits.**23 $\frac{1}{4}$ 

Road arrives S. of the W. end of Lake Beshik.

28 $\frac{1}{4}$ 

Road crosses a stream flowing into Lake Beshik.

miles	
30 $\frac{1}{4}$	<b>Pazarkia.</b>
36 $\frac{1}{2}$	Cross the <b>Bergos Deresi.</b>
40 $\frac{1}{2}$	Road reaches the <b>Rendina Boghazi</b> and crosses it either here or 1 $\frac{1}{2}$ mile farther on.
42	Road crosses the <b>Rendina Boghazi</b> (?). Road turns almost due N. and proceeds along the shore of the Gulf of Rendina (Orfano). This stretch is commanded from the sea, and water is very scarce along it.
42 $\frac{1}{2}$	Road crosses Route 149 at mile 26 $\frac{1}{2}$ .
49 $\frac{1}{2}$	<b>Skala of Asprovalta.</b>
55 $\frac{1}{2}$	<b>Chai Aghizi</b> , an open roadstead with a landing stage (report, March 1916) near the mouth of the <b>Struma</b> . The landing is on a sandy beach between the custom-house and two half-ruined inns. There is no village. A small trade is done by sailing barques along the coast. Steamers do not call. The Struma is not navigable, owing to rapids some 2 miles up, and a bar across the mouth.

## ROUTE 119

### CHAI AGHIZI—SERES, 38 miles

This is reported to be a good cart track, fit for wheeled traffic, or even motor transport in good weather ; it becomes a carriage road for the last 6 $\frac{1}{2}$  miles.

miles	
0	<b>Chai Aghizi</b> (landing stage). Track starts in NE. direction, skirting low hills, with the Struma to SE.
1 $\frac{1}{2}$	Turn in general NW. direction, following marshy SW. shore of Lake <b>Tahinos</b> .
2 $\frac{1}{2}$	Pontoon ferry over the Struma to r., leading to <b>Angista</b> (Route 120).
8	<b>Cherkesköi</b> . Marshy land between track and lake.
9 $\frac{1}{4}$	<b>Kale Zir</b> (Pyrgos). <b>Monuhi</b> $\frac{1}{2}$ mile SW.
12 $\frac{1}{2}$	<b>Iviron</b> (Niveros). Track gradually leaves shore and ascends low hills.



miles

A lesser track leads along shore to **Ahinos**, 4 miles, and then *via* **Alemdar**,  $6\frac{1}{2}$  miles, rejoining main track in 8 miles (see mile  $20\frac{3}{4}$  below).

16 $\frac{1}{4}$ 

Branch track SW. to **Jinjo** ( $1\frac{1}{2}$  mile), **Zervohori** (3 miles), W. to **Hunikos** (4 miles), and then in a general WNW. direction to **Nigrita** ( $8\frac{1}{2}$  miles). Branch track N.  $1\frac{1}{2}$  mile to **Ahinos**.

It is reported that the head of Lake Tahinos is near this place, and not (as shown on the Austrian Staff and other maps) some 10 miles farther NW. This upper tract consists mostly of marsh and forest, and it is stated that there are no tracks across it.

Main track descends.

17 $\frac{3}{4}$ 

**Patrik**,  $\frac{1}{4}$  mile SW. of track.

19 $\frac{3}{4}$ 

Cross **Ilije Dere**. **Alemdar**,  $\frac{1}{4}$  mile NE.

20 $\frac{3}{4}$ 

Track from **Ivion** (see mile  $12\frac{1}{2}$  above) enters from E. by S.

22 $\frac{1}{2}$ 

**Apidia** (Pije).

Branch track to **Nigrita**,  $3\frac{3}{4}$  miles, &c. (see Route 155).

26

**Gudeli**.

26 $\frac{3}{4}$ 

**Jami**. A cart track runs WNW. to Doiran, crossing the Salonica-Seres route at 6 miles (see Route 96 at mile  $43\frac{1}{2}$ , and Route 97 at mile  $10\frac{3}{4}$ ).

30

Cross **Struma** (Karasu Chai) by **Komaryan** bridge, which is about 50 yards long and 10 ft. wide, and fit for all traffic. The bridge on the Salonica-Seres road is  $2\frac{1}{4}$  miles up stream. (See Route 96 under mile 44.) Road turns due E.

34 $\frac{1}{4}$ 

Cross the **Belitsa**.

37 $\frac{1}{4}$ 

Road crosses Salonica-Dedeagach railway at **Seres** station, and turns NNE.

38

**Seres**.

## ROUTE 120

CHAI AGHIZI—ANGISTA,  $28\frac{1}{4}$  miles

WITH BRANCH TO PORNA

This track is probably a cart road throughout, stony in places. One authority says that parts of it are in bad condition. A report of March 1916 says that a route between these two places will soon be practicable for motors.

miles

- |                  |   |
|------------------|---|
| 0                | <b>Chai Aghizi.</b> Track follows Seres track (Route 119) for $2\frac{1}{2}$ miles, then crosses Struma by pontoon ferry to—            |
| 3                | <b>Yeniköi.</b> Track turns in a general NE. direction up mountain side.  |
| $6\frac{1}{2}$   | <b>Lakovikia.</b> Track goes along W. slope of mountain.  |
| $8\frac{1}{2}$   | <b>Provista.</b>  |
| $9\frac{3}{4}$   | <b>Semaltos.</b> The actual course of the rest of the route is uncertain, but is possibly as follows :—<br>Track descends gradually NW. |
| $14\frac{3}{4}$  | <b>Zdravik.</b> Track turns NNE.  |
| $15\frac{1}{4}$  | Cross tributary of Angista, and then proceed E. by N.   |
| $16\frac{1}{4}$  | A track comes in from the N. from <b>Rakova.</b> Route turns ESE.   |
| $17\frac{1}{4}$  | <b>Kotsaki</b> (Kuchuk). Track turns NNE., crosses tributary of Angista, and ascends hills on opposite side.                            |
| 20 $\frac{3}{4}$ | <b>Kolchak,</b> $\frac{1}{2}$ mile W. of route.<br>Route turns E.   |

Branch track NNW. crosses the Angista (by bridge, 1 mile), and railway ( $1\frac{1}{2}$  mile) to **Rakova** ( $3\frac{1}{2}$  miles) and **Ziliahovo** (6 miles), whence there is a road WSW. to **Porna** village and station (10 miles) on the Salonica—

miles	
	Dedeagach railway (see Route 96, note following mile $54\frac{1}{4}$ ).
22	<b>Vulsista.</b> Route runs N. out of village.
$25\frac{1}{4}$	<b>Angista.</b> Route runs NW.
$28\frac{1}{4}$	<b>Angista</b> station on Salonica–Dedeagach railway.

## ROUTE 121

LEFTERA—PRAVISHTA—KAVALLA,  $20\frac{1}{4}$  miles

WITH BRANCHES TO ANGISTA, FOTOLIVO, AND DRAMA

Leftera is a small and very well sheltered cove, about 9 miles W. of Kavalla, surrounded by high hills. It is a natural harbour, with the 5-fathom line running close in shore, and the beach affording a good sandy landing-place, though small (about  $1 \times 1$  mile). Best anchorage at N. corner.

The road to Pravishta is a well-defined but very stony track, passable by mules or carts. The distance is usually covered in 2 hours by mules. The soil is clay, and during the rains occasionally becomes almost impassable. From Pravishta to Kavalla the track improves (see below).

miles	
0	Track leaves shore in middle of W. side of bay. Village of <b>Leftera</b> 1 mile NW. on slopes of hills amongst orchards, vineyards, and cultivated ground. Inhabitants mostly Greek, with some Turks. Track runs N. along shore.
$1\frac{1}{2}$	Inn E. of track, which runs inland N. by W., ascending hills.
$2\frac{1}{2}$	<b>Tuzla</b> farm. Track bifurcates (see mile 7 below). The western branch turns WNW. and ascends a small valley.
3	Head of valley. Track ascends rapidly, and turns N.

miles

4½ Summit of **Simvolon Dag**h ridge. Track begins to descend.

7 Track rejoins eastern branch, which has ascended N. by W. from Tuzla, and at 2¼ miles reaches summit of ridge, which ¼ mile NE. of this point has alt. of 1,476 ft. Track then descends in same general direction, and in 2 miles rejoins western track.

Track continues NW., descends into a shallow valley, and ascends a spur.

8¼ **Pravishta.** A small place of 600 houses. A centre for collecting mules and ponies. It would be possible to collect 200 mules in a short time. The ponies are undersized and usually bad.

From here there are two tracks to **Angista** station. One leads W. up hills *via* **Dranova** and across **Bunar Dag**h, reaching an altitude of 2,788 ft. at 7 miles and **Angista** station at 20½ miles from **Pravishta**. Another rather better track leads NNW. from **Pravishta** round lower slopes on E. and N. sides of **Bunar Dag**h, and reaches **Angista** station at 18 miles. Both these tracks are suitable only for mule transport. Another short branch track N. from the second track leads to **Fotolivo** station. There is also a bad track across marshy ground, diverging 5 miles NNW. of **Pravishta**, and running N. to **Drama**, about 16½ miles.

From **Pravishta** the track, which is good for mules but stony for carts, leads in ENE. direction across foot-hills of **Simvolon Dag**h to join the **Kavalla-Drama** road. Numerous wells along the track.

11 **Kanali**, SE. of track.

14½ **Vasilaki.**

16 Track joins **Kavalla-Drama** road (see Route 122 at mile 4¼), down which it turns SSE.

20¼ **Kavalla.**

## ROUTE 122

KAVALLA—DRAMA—NEVROKOP, 66½ miles

This is the main route entering Bulgaria by the Myesta valley. It is a chaussée fit for motors (March 1916), metalled and in fair order throughout to Drama. The slopes out of Kavalla are steep. According to a report of March 1916, the route from Drama to Nevrokop is practicable in good weather for field artillery and motors. In 1908 massive stone bridges were being built. The section between miles 32½ and 41¼ is reported by another authority to be in bad condition. Otherwise the road is fit for motor transport.

miles

0

**Kavalla.**

There are two roads leaving Kavalla, which join a short distance outside the town :

(i) The shorter and better leaves the NW. corner of the town, and runs along head of bay in W. direction.

¾

Road ascends in zigzags.

1¾

Road leaves bay and runs NW.

2½

Road joins road (ii), below, from Kavalla.

(ii) The second road leaves Kavalla—Xanthi road (Route 124) at NE. corner of town, and zigzags up hills in general WNW. direction, joining first road (i) at 2¾ miles.

Road now turns W. ¼ mile, then NNW. across **Simvolon Dagh.**

3

Alt. about 400 ft. Summit of ridge, alt. 1,670 ft., 1½ mile NE. Road begins to descend in same general direction (gradient 1 in 20).

4¼

Pravishta road (see Route 121 at mile 16) enters from WSW.



miles

- 4 $\frac{1}{2}$  Cross **Chesme Dere** by bridge, alt. 217 ft. Road now runs across low-lying ground, crossing several streams. Marshy ground to W. of road.
- 9 Road reaches hills and turns W. along their foot. Ruins of **Philippi** (marked by conical hill with tower on summit) S. of road, alt. 187 ft.
- 10 $\frac{1}{2}$  Road resumes general NNW. direction, following foot of hills to N. and E., and crossing several streams.
- 15 **Boiran**. Hills to NE. diminish in height.
- 16 $\frac{1}{2}$  **Doksat**, alt. 381 ft.

A good mule-track branches NE. to **Musratla** station on Salonica-Dedeagach line, 7 $\frac{1}{2}$  miles.

- Road runs across low plateau.
- 21 $\frac{1}{4}$  Cross railway (Drama station  $\frac{3}{4}$  mile SW.) and wide shingly bed of **Kuru Chai** (no bridge).  
Between the railway and the river a road branches NE. (2 $\frac{1}{2}$  miles) and then N. to Dospad (see Route 123 at mile  $\frac{3}{4}$ ).
- 22 **Drama**, alt. 344 ft.  
Road runs WNW. across low hills at the foot of higher hills N., crossing several bridged streams.
- 30 $\frac{3}{4}$  Cross the **Naspitsa**. **Plevna**  $\frac{1}{4}$  mile NNE. Road now enters **Boz Dag** mountains and ascends NNW.
- 32 $\frac{1}{2}$  Alt. 820 feet. Road is here close to the **Derbend Deresi**, and ascends its valley, crossing and recrossing stream with many windings. Crossings are bridged.
- 35 $\frac{3}{4}$  Alt. 1,640 ft. Road still ascends.
- 40 $\frac{1}{4}$  Road turns WNW.
- 41 $\frac{1}{4}$  Watershed, alt. 2,821 ft. Road begins to descend.
- 42 $\frac{3}{4}$  A track branches W. to **Elesh** (Lise), 1 $\frac{3}{4}$  mile.  
Road descends WNW. into **Panets** valley.
- 44 $\frac{1}{2}$  Alt. 2,067 ft. Road turns N. by W. along valley.
- 47 **Zernovo**, alt. 2,034 ft., small village on the Panets, at head of a marshy basin in hills.

miles

	Road proceeds N. by W. over undulating ground along foot of hills to W. of <b>Vezma</b> valley.
48 $\frac{1}{4}$	Alt. 2,165 ft.
49 $\frac{1}{4}$	Alt. 2,040 ft.
52 $\frac{1}{4}$	Alt. 2,165 ft. Road crosses stream and climbs N.
54	Cross watershed and frontier. Road descends, skirting hill to r.
57 $\frac{1}{2}$	Alt. 1,936 ft. at the crossing of the <b>Mutnitsa</b> river. Road runs NNW. round hills to l.
59 $\frac{1}{2}$	<b>Sadovo</b> , at foot of widening in Myesta valley. Road proceeds along hill-side on W. of valley.
62	<b>Koprivlen</b> , alt. 1,885 ft.
65 $\frac{1}{4}$	Road to Dospad Han, Batak, and Peshtera branches E. (see Route 103 at mile 1 $\frac{1}{4}$ ).
66 $\frac{1}{2}$	<b>Nevrokop</b> , alt. 1,853 ft.

## ROUTE 123

DRAMA—DOSPAD, 44 $\frac{3}{4}$  miles

This is a rough mule-track only from beyond Mukrosh (11 miles from Drama) to Badulin (41 $\frac{1}{2}$  miles), where it joins the Nevrokop–Dospad–Devlen road (Route 104).

miles

0	<b>Drama</b> . This route leaves SE. by the Kavalla road.
$\frac{3}{4}$	Road branches NE. (see Route 122 at mile 21 $\frac{1}{4}$ ) along low, bare hills, following S. bank of river.
3 $\frac{1}{4}$	Road turns N. and enters <b>Boz Dag</b> h Mts., ascending the <b>Kuru Chai</b> valley, sometimes following the stony bed of the stream, which is usually dry, through maize and tobacco fields.
7 $\frac{3}{4}$	<b>Shipcha</b> . Road continues N.
9	Alt. 1,250 ft. Road leaves the valley, and zigzags up a spur between forks of the valley (short lengths of old paved road at intervals).
11	<b>Mukrosh</b> .

miles

Branch track NW. ascending **Tulumlar Tepe**, and rising to alt. 2,824 ft. at  $2\frac{1}{4}$  miles, to **Chernovitsa** (3 miles). Thence track NNE. down to **Burnik** ( $5\frac{1}{4}$  miles, see mile 16 below).

Road now becomes a track, which continues in general N. direction, and also crosses Tulumlar Tepe.

$12\frac{1}{2}$  Summit of ridge, narrow bare col, alt. 3,136 ft. Route descends sharply by stony path, paved in places.

14 **Hazir**, alt. 2,276 ft. Track continues to descend with windings to Myesta valley.

16 **Burnik**. Track from Chernovitsa (see under mile 11 above) enters from SSW.

$16\frac{3}{4}$  **Papasköi** bridge, alt. 1,184 ft. A light wooden trestle bridge impassable for wheeled vehicles. The shingly river bed is 80–100 yards wide, and the strong stream (12 ft. deep) near r. bank is crossed by a span of 60 ft. Six other spans make up total length of 105 yards. Roadway 8 ft. wide. River in flood-time rises 20 ft.

Track now turns NNW., zigzagging up spur between Myesta and its tributary Mazhdel Deresi.

18 **Papasköi**. Track now runs along spur, then descends more easily to valley of small tributary of Myesta.

$20\frac{1}{2}$  Cross tributary, alt. 1,476 ft., and ascend valley by r. bank.

$22\frac{1}{4}$  **Ustitsa**, alt. 2,436 ft., Pomak village surrounded by fields of maize, rye, wheat, barley, tobacco, some orchards and vineyards. Track ascends W. side of valley obliquely to ridge.

$23\frac{3}{4}$  Alt. 3,018 ft. Track continues to ascend along ridge: bare country.

$26\frac{1}{4}$  Alt. 4,487 ft. Track still ascends, turning NNE. and winding considerably.

miles	
29 $\frac{1}{2}$	Alt. 4,707 ft., in small valley.
29 $\frac{3}{4}$	<b>Kalchovo</b> , $\frac{1}{4}$ mile E. of track, which turns NNW. and runs along upper slopes of high range.
32	Cross from E. to W. side of ridge. <b>Chadir Kaya</b> (spring), alt. 5,741 ft., 1 $\frac{1}{2}$ miles N. Good grazing in hollows; patches of rye and oats. Steep descent.
38	Cross frontier into Bulgaria.
39 $\frac{1}{4}$	Alt. 4,028 ft. Track gradually descends to the Dospad valley.
41 $\frac{1}{2}$	Cross the Dospad to <b>Badulin</b> , alt. 3,117 ft. Pomak village. Flour and saw mills. Track enters Nevrokop-Dospat-Devlen road (see Route 104 at mile 21 $\frac{1}{2}$ ).
44 $\frac{3}{4}$	<b>Dospad</b> , alt. 3,831 ft.

## ROUTE 124

### KAVALLA—XANTHI, 32 $\frac{1}{2}$ miles

According to information of March 1916, this is a good new road. It is metalled to a width of 18 ft. for a few miles outside Kavalla, but the remainder of the Greek section (up to the Myesta) consists of a track or series of tracks, and is liable to become very bad in parts. The Bulgarian section, from the Myesta to Xanthi, is metalled throughout, and in good condition. From mile 26 onwards it is reported fit for motor transport. The Myesta is said to be crossed by a wooden bridge liable to be broken in flood-time, though the maps show a stone bridge.

miles	
0	<b>Kavalla.</b> Road leaves NE. and runs along the coast in a general E. by N. direction, crossing numerous streams.
7 $\frac{3}{4}$	Road leaves coast, which turns SSE., and turns ENE. across plain, keeping close to foot of hills to N. There are numerous wells.

miles

Alternative track, suitable for wheeled traffic throughout, diverges SE. *via* **Irleti** ( $5\frac{1}{2}$  miles), and rejoins at **Sarishaban** (11 miles).

- 17 Road bifurcates. The better road, according to the most recent maps, runs NE. over slightly undulating country ( $3\frac{1}{2}$  miles). The other branch runs E. to—

17 $\frac{1}{4}$  **Sarishaban**. Track from **Kalamuti** (see Route 125) enters from SSW. : also alternative track from **Irleti** (see under mile  $7\frac{3}{4}$  above).

Alternative track runs E. to the **Myesta**, which is crossed by a ford, not practicable in spring, or after heavy rains ( $1\frac{3}{4}$  mile). From the E. bank of the **Myesta** it is passable by wheeled traffic. It passes  $\frac{3}{4}$  mile S. of **Ghenjeli** ( $5\frac{1}{2}$  miles), turns NE. to **Yenije Karasu** (14 miles), then NNW., joining **Porto Lagos-Xanthi** road ( $17\frac{3}{4}$  miles : see Route 126 at mile 13), and reaches **Xanthi** ( $19\frac{3}{4}$  miles).

Road turns NNE.

- 20 The two roads (see mile 17 above) join.

Branch track NNE. up W. bank of the **Myesta** to **Agalar** (2 miles) and **Indzhase** (4 miles) on the bank of the **Myesta**, opposite **Okchilar** station on **Salonica-Dedeagach** railway.

- 21 $\frac{1}{2}$  Cross **Myesta** by wooden bridge. The river is also easily fordable at this point in summer, and has a bottom of hard sand.  $\frac{1}{2}$  mile below the bridge the river runs in two channels past an island 1 mile long.

Road turns in general NE. direction and becomes a good *chaussée*.

- 26 Alt. 203 ft. Cross railway.

A branch *chaussée* reported fit for motor



miles

transport follows N. side of railway from this point W. to **Okchilar** station, 2 miles. Undulating country.

32 $\frac{1}{2}$ 

**Xanthi** (Eskije), alt. 285 ft.

## ROUTE 125

KALAMUTI—XANTHI, 25 $\frac{1}{4}$  miles

There are several tracks from Kalamuti to Sarishaban, on the Kavalla-Xanthi road (see Route 124). The most direct, described below, is a well-defined sandy track, used by native carts.

miles

0

**Kalamuti** (Keremidli). After running  $\frac{1}{2}$  NE. to get round lagoon, track turns NW.

2 $\frac{3}{4}$ 

**Sosurki** (Su-Cigari). Track turns NNE. skirting a marsh.

5 $\frac{1}{4}$ 

Cross a stream by a bridge.

10 $\frac{1}{2}$ 

**Sarishaban**, on the Kavalla-Xanthi road (see Route 124 at mile 17 $\frac{3}{4}$ ). Follow this road.

25 $\frac{1}{4}$ 

**Xanthi**, alt. 285 ft.

## ROUTE 126

PORTO LAGOS—XANTHI, 15 miles

This was at one time a good chaussée, which fell into disrepair, but has been remade by the Bulgarians (March 1916). For the last 7 miles into **Xanthi** it passes through flat, sandy country with woods on either side.

miles	
0	<b>Porto Lagos.</b> <sup>1</sup> Road starts in W. direction.
3	Turn NW.
5½	<b>Chepel Orman</b> W. of road.
6	<b>Aidin Obasi</b> W. of road.
8¾	Track, reported fit for wheeled traffic, W. to <b>Yeniye Karasu</b> (2¼ miles), and ENE. across marshy country at the head of Lake Buru, through <b>Kuru Kebir</b> (3 miles) to <b>Yalli</b> (8½ miles) and the Xanthi-Gumuljina road and railway. (See Route 131 at mile 12.)
13	Another track SSE. to Yeniye Karasu, &c. (see Route 124 under mile 17¾).
14¾	Railway crosses road on outskirts of Xanthi.
15	<b>Xanthi</b> , alt. 285 ft.

## ROUTE 127

### XANTHI—PASHMAKLI, 47¾ miles

This road is a main line of communication throughout, and, in spite of its mountainous character, carries a regular motor traffic. Since the completion of the Pashmakli-Chepelare road (see Route 129) it has become an important route between central and southern Bulgaria. According to a report of March 1916, however, the road has not been completely repaired. It is only 8 ft. wide, and is liable to floods.

miles	
0	<b>Xanthi</b> (Eskije), alt. 285 ft. The road proceeds up the valley of the <b>Eskije</b> , leaving Xanthi in a NNW. direction, crossing the stream several times.

<sup>1</sup> NOTE.—It is reported that a road for wheeled traffic has been made up the heights which stand W. of Porto Lagos to gun positions in the neighbourhood of the village of **Bulustra**, and that this road has been carried down farther to the coast S. of the above village.

miles

- 7 Cross the **Isi Yuren** (bridge), alt. 920 ft., and proceed up right bank of a tributary.
- 10 Alt. 1,302 ft. Road crosses stream and proceeds up l. bank.
- 11 Road leaves stream and ascends hills to the E. in a general NNE. direction with many zigzags. The pass is steep on both sides.
- 13 $\frac{1}{4}$  Summit of watershed. Road descends in zigzags into the valley of a tributary of the Kuru Chai with a general NE. direction.
- 17 Cross the **Kuru Chai** just above the point where the tributary joins it. **Shakhin** village on l. bank. Road turns NW. up the left bank of the Kuru Chai.
- 22 **Elmala.**
- 22 $\frac{1}{2}$  Cross the **Kuru Chai**.
- 24 $\frac{1}{4}$  Recross to l. bank. Alt. 1,990 ft.
- 25 $\frac{3}{4}$  Alt. 2,300 ft. Ascend steeply.
- 26 $\frac{3}{4}$  Cross a ridge.
- 30 $\frac{1}{2}$  **Chankir Dere** in the valley of the Ilije Dere.
- 33 $\frac{1}{4}$  Alt. about 2,600 ft.
- 35 $\frac{3}{4}$  Road crosses the **Arda**.
- 40 $\frac{3}{4}$  Road turns due W.
- 42 $\frac{3}{4}$  **Fatova.** Road turns NNW.
- 44 $\frac{3}{4}$  Road crosses the **Kara Dere**.
- 45 **Raikovo.**

Branch routes :—

(i) A road branches due E. along the Kara Dere to **Chatak**, 2 $\frac{1}{2}$  miles. From Chatak tracks lead N. over the Bukova Range to Chepelare. One of these is possibly fit for wheeled traffic (see Route 129 A under mile 10 $\frac{1}{2}$ ).

(ii) A track branches N. to Chepelare (see Route 129 C).

Route turns due W.

miles

47 $\frac{3}{4}$ 

**Pashmakli** (Pashmakla), alt. 3,313 ft., with about 320 Pomak and 120 Christian Bulgarian families. It is situated in a broad mountain valley, on the Kara Dere, a large tributary of the Arda, among meadows and cultivated land, backed on the W. by the steep wooded ridges of the Rhodope. There is an export trade to Xanthi in pine beams and planks, which are cut in the local saw-mills. There are large woollen-cloth mills in the neighbouring villages of Chatak and Raikovo.

For the continuation of the Xanthi-Pashmakli route northwards to Chepelare, Stanimaka, and Philippopolis, see Routes 129 and 130.

For the road to Dovlen, see Route 128.

There are rough cart tracks down the Arda valley to **Egridere** (17 hrs.) and **Kirjali** (25 hrs.).

## ROUTE 128

PASHMAKLI—DOVLEN, 23 $\frac{1}{2}$  miles

This is a newly completed chaussée, reported fit for motor transport, linking up the Xanthi-Pashmakli-Chepelare-Philippopolis road (Routes 127, 129, 130) with the Nevrokop-Dospad Han-Batak-Peshtera-Tatar Bazarjik (or Philippopolis) and the Nevrokop-Dospad-Dovlen roads (Routes 103, 104, 105, 106). On the map a bridle path only is shown, so details here given should be used with caution.

miles

0

**Pashmakli**, alt. 3,313 ft. This road follows in a N. direction the Pashmakli-Chepelare route for 7 $\frac{1}{2}$  miles (see Route 129, B).

7 $\frac{1}{2}$ 

The road diverges W. from the Pashmakli-Chepelare route.

8

Road descends into upper valley of the **Lija**, which it follows most of the way to Dovlen.

miles	
12 $\frac{3}{4}$	<b>Shiroka Leka.</b> Branch road from Chepelare (6 miles) enters from NNE. (see Route 129, A, at mile 16 $\frac{1}{2}$ (ii)).
13 $\frac{1}{2}$	<b>Vyerbovo,</b> 1 mile N. of road.
16 $\frac{3}{4}$	<b>Breza,</b> 1 $\frac{1}{4}$ mile N. of road.
18	Road diverges from the Lija (here called the Shiroka Leka), and runs along hills to N. of valley.
19 $\frac{1}{4}$	<b>Beden.</b>
21 $\frac{3}{4}$	Road returns to r. bank of the Shiroka Leka.
22 $\frac{3}{4}$	Alt. 2,281 ft.
23 $\frac{1}{2}$	<b>Dovlen.</b> For Dovlen—Dospad road see Route 104.

## ROUTE 129

PASHMAKLI—CHEPELARE, 16 $\frac{1}{2}$  miles

A new chaussée, fit for motor transport, is reported to have been completed between these points, linking up the Xanthi-Pashmakli (Route 127) and Chepelare-Philippopolis (Route 130) chaussées. In the absence of exact information as to its course, the details here given should be used with caution. The road is described as 'very good, largely faced with marble, but the turns on the steep hills are very sharp, and motor transport would have to be of the best and most powerful kind' (Dec. 1915). According to a report of March 1916, only a few bridges had still to be completed.

miles

(A)

This route is shown as a carriage road on the Bulgarian map, 1914.

0      **Pashmakli,** alt. 3,313 ft. Road starts in a N. direction.

 $\frac{3}{4}$ 

Road turns NE. across a tributary of the Kara Dere. It then ascends a ridge between streams in a general N. direction.



miles

- 4 Road crosses a head-stream and proceeds E. across a ridge to a small valley.
- 4½ Route (C) joins this route.
- 5½ An alternative route from Pashmakli, which crosses the streams and ridges lower down, here joins the road. This route is a little longer and more winding than the one described.
- 6 **Lagoch**, at the crossing of a small stream. Route turns in a general NW. direction and crosses a spur.
- 8 Reach the **Sulagi Dere** (alt. 3,683 ft.), and proceed up the valley.
- 9½ Road leaves the valley and ascends hills NW. in the same direction.
- 10½ Road crosses the **Bukova** range at an altitude of about 6,500 ft. The rise in the last mile is shown on the Bulgarian map as extremely steep.
- A ridge track crosses the route. 1¼ mile SW. this track crosses Route (B), at mile 6½ (see below). At 1¼ mile NE. it crosses a track from **Chatak** in the Kara Dere valley (see Route 127 under mile 45) to Chepelare, which converges on the route described in the Chepelarska valley (see mile 14½), and at 3 miles crosses a similar route which is possibly fit for wheeled traffic.
- Road descends to the head of the **Chepelarska**.
- 11½ Route (B) joins the road, which now proceeds N. down the left bank of the Chepelarska.
- 14½ A track from **Chatak** enters from SE. (see under mile 10½ above).
- 15 Road ascends a ridge W. of the stream in a N. by W. direction, and descends to—
- 16½ **Chepelare**. From here (i) the main road to **Philippopolis** (Route 130) proceeds N. (ii) A branch road runs SW. to **Shiroka Leka** (6 miles) where it joins the Pashmakli-Dovlen road (see Route 128 at mile 12¾).

miles

(B)

- 0 **Pashmakli.** This is the most direct route to Chepelare. It is shown on the Bulgarian maps as a bridle path. Route runs N. up the W. bank of a tributary of the Kara Dere.
- 2 $\frac{1}{4}$  Track bifurcates. The l. branch climbs in a N. direction, and rejoins the route (which in this section is possibly fit for wheeled traffic) at mile 5 $\frac{1}{2}$  below.
- 3 Cross a stream and ascend the valley NNE.
- 4 At head of valley track turns NW., slightly descending, then skirting ridge.
- 5 $\frac{1}{2}$  Alternative track rejoins (see mile 2 $\frac{1}{4}$  above). Track ascends again and winds.
- 6 $\frac{1}{2}$  Route crosses the Bukova Range, alt. about 6,700 ft.
- A track branches NE. to cross Route (A) at mile 10 $\frac{1}{2}$ .
- Route descends NNE.
- 7 $\frac{1}{2}$  Road to **Dovlen** branches W. (see Route 128).
- 8 $\frac{1}{2}$  Route joins Route (A) at mile 11 $\frac{1}{2}$  above.

(C)

- 0 **Pashmakli.** Follow Xanthi road (Route 127) for 2 $\frac{3}{4}$  miles.
- 2 $\frac{3}{4}$  **Raikovo** (see Route 127 at mile 45). Leave Xanthi road in a N. direction. Track ascends ridge between two streams, with many windings.
- 6 $\frac{1}{2}$  Track joins Route (A) at mile 4 $\frac{1}{2}$ .

## ROUTE 130

## CHEPELARE—PHILIPPOPOLIS

This is a chaussée, reported fit for motor transport throughout, and a continuation northwards of the important road from Xanthi *via* Pashmakli to Chepelare (Routes 127, 129). The mountainous district through which the Chepelarska

ravine runs is inhabited mainly by Pomaks. This route was the scene of the retreat of the 2nd Turkish Army Corps when driven south by the Russians from the plain of Philippopolis in 1878. The road was made chiefly for military purposes with the idea of its serving as an easy passage across the Rhodope chain S. of Philippopolis into the low-lying country of the valley of the upper Arda.

From Hvoina an alternative route (B), reported by a Greek officer to be fit for motors, leads down the valley of the Bachkovska to Stanimaka, and thence to Philippopolis.

## ROUTE (A)

miles

- |                  |   |
|------------------|---|
| 0                | <b>Chepelare</b> , alt. 3,680 ft., a health-resort frequented by visitors from Philippopolis.<br>General direction of road N. following valley of Chepelarska.<br>Road follows l. bank of stream.                       |
| 3                | <b>Bogutevo</b> on opposite side of valley, overlooking stream.   |
| 8                | Road crosses the <b>Chukur Dere</b> .   |
| 11               | <b>Hvoina</b> , alt. 2,231 ft. Road crosses a western tributary of the Chepelarska.<br>The road now proceeds to climb out of the Chepelarska valley by a series of zigzags. Route B (below) continues along the valley. |
| 16               | <b>Bela Cherkva</b> monastery. Road descends in a N. direction.   |
| 23               | <b>Yeniköi</b> , 1 mile W. of road. Road continues to descend.  |
| 26 $\frac{1}{4}$ | <b>Markovo</b> , on the edge of the plain of Philippopolis.   |
| 28 $\frac{1}{4}$ | <b>Komatevo</b> .   |
| 33 $\frac{1}{4}$ | <b>Philippopolis</b> .  |

## ROUTE (B)

- |                  |  |
|------------------|--|
| 0                | <b>Chepelare</b> .                                     |
| 11               | <b>Hvoina</b> . Continue along the Chepelarska valley. |
| 12 $\frac{1}{2}$ | Road and valley turn NE.                               |

miles

16 $\frac{3}{4}$ **Naryechen.**

18

Valley broadens somewhat. **Sushitsa** river enters from SSE.21 $\frac{1}{2}$ Monastery of **Bogoroditsa**. Valley narrows.22 $\frac{1}{2}$ **Bachkovo**. Road and valley turn N. Valley broadens again.26 $\frac{1}{2}$ **Stanimaka**.

Branch roads :—

(i) SE. to **Dolnya Albanas** (8 miles) and **Topolovo** (10 $\frac{1}{2}$  miles). From Dolnya Albanas a road leads E. and NE. to **Lenovo** (5 $\frac{1}{2}$  miles) and **Bregovo** (11 miles). From Lenovo a road leads E. to **Delbok Izvor** (6 $\frac{1}{2}$  miles) and **Bregovo** (11 miles) SE. From Delbok Izvor another road runs NE. to **Debr** (6 miles) on the Sofia-Adrianople road (Route 141 at mile 111).

(ii) N. across the plain, 6 $\frac{3}{4}$  miles, to **Stanimaka** station on the Sofia-Adrianople railway.

Road to Philippopolis runs NNW. and is absolutely level and well made.

28 $\frac{3}{4}$ 

Alt. 659 ft.

31 $\frac{3}{4}$ 

Branch road SSW. to **Kuklen** (2 $\frac{1}{2}$  miles) with a continuation to Philippopolis: this branch rejoins main route at mile 36 $\frac{1}{4}$ , below.

33

**Orta Han**, alt. 538 ft. **Krumovo** 1 mile NE.33 $\frac{3}{4}$ 

Marshy land E. of road.

35 $\frac{3}{4}$ 

Road crosses railway, and follows it closely.

36 $\frac{1}{4}$ 

Branch road from **Kuklen** (see mile 31 $\frac{3}{4}$ ) enters from S.

37 $\frac{3}{4}$ **Philippopolis**. Alt. 528 ft. (at railway station).

## ROUTE 131

## XANTHI—GUMULJINA, 27 miles

This is the direct route, following the Salonica-Dedeagach railway. It is a good unmetalled road along the foot of the hills across a stony clay country. The streams from the N. are unbridged, but are fordable except when in flood. The road is fit for wheeled traffic, but hardly for motor transport.

miles

- |     |   |
|-----|---|
| 0   | <b>Xanthi.</b> Road runs E., crossing railway just outside the town and following it a short distance to the S. According to a report of March 1916 there is a good road N. of the railway. |
| 2½  | Cross railway.  |
| 9   | Cross railway again, 1 mile E. of <b>Kizilje Kõi</b> station. Follow railway closely on S.  |
| 12  | Cross railway to N. side near <b>Yalli</b> .<br>Track from Porto Lagos-Xanthi road (see Route 126 at mile 8¾) enters from WSW.  |
| 14½ | Alternative road crosses railway and rejoins at mile 17.  |
| 15¾ | <b>Yazi Kõi.</b>  |
| 16½ | Cross railway.  |
| 17  | Road crosses the <b>Kuru Chai</b> .   |
| 17¾ | Cross railway at <b>Narla</b> village and station.  |
| 21¾ | Cross railway.  |
| 23  | Cross the <b>Aksu Dere</b> .  |
| 25  | Cross railway.  |
| 26  | Cross the <b>Boshbosh Dere</b> (bridge).  |
| 27  | <b>Gumuljina</b> , alt. 200 ft.   |



## ROUTE 132

## PORTO LAGOS—GUMULJINA, 19 miles

This is a new metalled chaussée over easy level country skirting the marshes E. of Lake Buru, and on a slightly higher level. The road is described as very good, specially made for military purposes, and fit for motor transport.

miles

0	<b>Porto Lagos.</b> Road leads E. over two bridges and stone causeway (destroyed or damaged by bombardments, Jan.-April, 1916) between Lake Buru and sea.
1 $\frac{3}{4}$	Reach mainland.
3	Turn N. for 1 mile, and then NE., following up the l. bank of the Aksu Dere.
6	<b>Burhan-ed-Din.</b>
7 $\frac{1}{2}$	<b>Palazli.</b>
11	Turn E.
12 $\frac{1}{4}$	<b>Saraja Mesina.</b> Turn ENE.
18 $\frac{3}{4}$	Railway crosses road.
19	<b>Gumuljina,</b> alt. 200 ft.

## ROUTE 133

GUMULJINA—KIRJALI, 45 $\frac{1}{4}$  miles

## WITH BRANCH TO KUSHI KUVAK

This route follows the Adrianople road for 15 $\frac{1}{4}$  miles; see Route 135, where general description of this section is given. The road was being remade for military purposes in 1908. Its method of reconstruction was excellent, being the work of Italian engineers. The road is now fit for motor transport throughout, and, since the completion of the Kirjali-Haskovo road (see Route 134), the two form a very important military route between southern and central Bulgaria, parallel to that between Xanthi and Philippopolis (Routes 127, 129, 130).

miles

- 0 **Gumuljina**, alt. 200 ft.
- 15 $\frac{1}{4}$  Road diverges NW. from Adrianople road (Route 135).
- 17 Road turns N. along the slopes on the E. side of the valley of the **Ajisi Dere**.
- 21 Road crosses a tributary of the Ajisi and climbs a spur, turning NW. and then N. with a general N. direction along the slopes of the hills overlooking the valley of the Sugudlu Chai from the E.
- 22 $\frac{1}{2}$   $\frac{1}{4}$  mile W. of this point the Ajisi flows into the Sugudlu Chai, a shallow, muddy stream, easily fordable, which in rainy seasons becomes a torrent.
- 31 $\frac{1}{2}$  **Aladin** village. Road descends to the r. bank of the Sugudlu Chai, which here spreads over wide shingly bed, with fertile cultivated ground on each side (maize, barley, tobacco).
- 36 $\frac{1}{4}$  **Mestanla** (alt. 890 ft. ; pop. about 1,200 ; orchards).

A metalled road branches off SE. to **Kushi Kuvak** on the Adrianople road (see Route 135 at mile 29 $\frac{1}{2}$ ).

It starts up the valley of a tributary of the Sugudlu Chai.

miles

- 3 Road turns S.
- 7 $\frac{1}{2}$  **Chakmaklar** village. Road turns ENE.
- 9 $\frac{3}{4}$  Alt. 1,745 ft.
- 12 $\frac{1}{2}$  **Kyulfaler** village. Road skirts the crest of a wooded hill.
- 16 $\frac{1}{2}$  Road descends into the valley of the **Burgas** and turns S. by E.
- 18 $\frac{3}{4}$  **Kushi Kuvak**.
- 36 $\frac{1}{2}$  Alt. 820 ft.
- 39 Road crosses the **Sugudlu Chai** by new iron girder bridge, 100 yards long, carried on two stone piers 45 ft. above river, which is here practically unfordable for carriages (October). It then ascends hills in

miles

a NNW. direction, after which it descends into the Arda valley.

43 $\frac{3}{4}$ 

New road diverges NNW. from old road and crosses Arda by new bridge and reaches Kirjali down the l. bank of the river.

Old road crosses the Arda about 1 $\frac{1}{2}$  mile farther on. River can be crossed in summer by ford (difficult and deep in October: ferry in winter) near remains of old bridge, which was washed away before 1907. Wide, stony bed; stony banks.

45 $\frac{1}{4}$ 

**Kirjali** (Kardzhali) on N. side of river, with 400 Turkish houses of mud and wood, in an open basin among hills, which command the town. It has two main streets and a mosque, government offices, and a hospital with 150 beds. The barracks are (1907) S. of the town, and the magazine NE. The water-supply (chiefly from wells) is bad, and the river is contaminated. The Arda is here 400 yards broad, flowing over a bed of shingle. Its current runs in the summer at about 2 miles an hour. It is liable to sudden freshets, even in midsummer, after rain. The r. bank opposite the town is steep, the l. bank shelving.

For route N. to Haskovo, see Route 134.

## ROUTE 134

KIRJALI—HASKOVO, 31 $\frac{1}{2}$  miles

This important route through the Rhodope range was used by the Bulgarians for their occupation of the Arda valley and advance on Gumuljina, in 1912. It has since been reconstructed, and is now a chaussée, fit for motor transport, and reported to be carrying a regular motor service between Gumuljina and Haskovo. It is believed that the new road follows what is here described as the main route; but in the absence of precise information the details given

below should be used with caution. The general direction of the road is NNE.

miles

0 **Kirjali** (Kardzhali). Road starts E., crosses small affluent of Arda, and ascends hills.

$\frac{3}{4}$  Turn NNE.

$1\frac{3}{4}$  **Akbar Alta**.

$2\frac{3}{4}$  **Isaklar**. Road winds NW. round W. side of spur, and continues to ascend, rising above 2,000 ft. contour.

$3\frac{1}{2}$  Turn NE. along side of spur.

5 **Ishikler**.

$5\frac{3}{4}$  Road descends NNE. towards valley of Perperik Dere.

$8\frac{3}{4}$  Cross **Perperik Dere**.

From this point an alternative route to Haskovo ascends hills NE.

miles

$1\frac{1}{4}$  **Dukanjilar**. Turn NNW. round hill.

$2\frac{3}{4}$  **Akcha Kairak**. Main route may be rejoined  $\frac{1}{2}$  mile farther NW. at mile  $12\frac{1}{2}$ . Hence track across hills NNE.

$8\frac{1}{2}$  **Mandra** (formerly custom-house).

Track proceeds NE. descending to valley of Karashan Dere.

$9\frac{1}{4}$  Cross **Karashan Dere**. Hence one track proceeds down valley to **Orlovo** (1 mile), whilst the more direct track ascends hills N. of valley NE.

$10\frac{3}{4}$  Track meets track from **Orlovo** (1 mile) at top of ridge. Descend N. to the **Olu Dere**, and cross it.

$11\frac{3}{4}$  **Voyodovo** (Pashaköi), head of main road from Haskovo.

13 Alt. 771 ft.

$13\frac{3}{4}$  Descend into Balikchi Dere valley.

$14\frac{1}{2}$  Cross the **Balikchi Dere**.

$17\frac{1}{2}$  **Haskovo** ( $26\frac{1}{4}$  miles from Kirjali by this route).

miles

Main route continues NW. for short distance up l. bank of Perperik Dere, and then up E. side of valley of small tributary.

10 $\frac{1}{2}$ 

**Chakarlar.** Road leaves valley and ascends hills obliquely N., winding much.

13 $\frac{3}{4}$ 

Reach summit of ridge (Karam Karalik Tepe, alt. about 1,500 ft.).

15 $\frac{1}{2}$ 

**Ai-Dogmush.** Road turns W. by N., descending.

17

**Shiroka Poliana** (Alan). Road descends NNW. to valley of small tributary of Olu Dere.

18

**Staroselo** (Eski Kõi). Cross stream and ascend hills on opposite bank N., crossing spur, and again descending to stream.

19 $\frac{1}{4}$ 

Reach stream, and follow it to confluence with Olu Dere.

19 $\frac{3}{4}$ 

Cross **Olu Dere**. Ascend hills NW.

21 $\frac{1}{2}$ 

Turn ENE. along ridge.

A road runs WSW. to **Kolets** (Kazikli), 3 miles.

24 $\frac{1}{2}$ 

**Trakiyets** (Elekecha), on spur overlooking Olu Dere,  $\frac{1}{4}$  mile SSE.

Road turns NNE., and after crossing a low spur descends into the valley of the Balikchi Dere.

26

Cross the **Balikchi Dere**, and ascend hills NE.

26 $\frac{3}{4}$ 

Alt. 944 ft. immediately N. of road. Descend slightly, and ascend second spur, along which road runs, overlooking the valley of a small affluent of the Olu Dere.

31 $\frac{1}{2}$ 

**Haskovo**, alt. about 650 ft.



## ROUTE 135

GUMULJINA—ADRIANOPLE,  $87\frac{3}{4}$  miles

This road is a metalled main road throughout, accompanied by a telegraph line, and gives an important line of communications between the Arda valley and the Aegean. The following is a general description of the Gumuljina—Ortaköi section by a traveller in 1908, before the road was remade :—The route is ‘sometimes in a deep wooded valley, sometimes on a rough road cut out of the hill-side, one flank rising rock-like above us, the other dropping almost sheer down into a gorge. Now and then, when a valley widens out, one passes a few houses built of logs, the occupants of which cultivate the small fields surrounding them, which are often arranged in terraces one above the other. The lower portions of the mountains are covered with low oak bushes, sweet chestnuts, and beeches; the higher slopes are decked with scattered pine trees; the peaks are almost bare and rocky.’

miles

0	<b>Gumuljina</b> , alt. 200 ft. The road leaves the town in a NNE. direction up hills on r. bank of the <b>Buklaja Deresi</b> .
2	Alt. 600 ft.
4	Alt. 1,480 ft. Well on left of road.
$4\frac{3}{4}$	Alt. 1,611 ft. Road turns N. by W.
$6\frac{1}{2}$	Alt. 1,459 ft. Well on left of road. Road descends in zigzags for 2 miles.
7	<b>Han Suluyunus</b> and bridge over the <b>Buklaja</b> . Road runs N. by W.
$8\frac{1}{4}$	Alt. 1,430 ft. Bridge.
$8\frac{3}{4}$	Bridge. Road climbs by a reversed S-curve to the ridge of—
$10\frac{1}{4}$	<b>Balkan Toresi</b> , alt. 2,300 ft. Well. Road descends NNW.
$11\frac{3}{4}$	Road crosses a tributary of the Ajisi Dere. <b>Kuch</b>

miles

- Han**, alt. 1,551 ft. **Karakash** village  $1\frac{1}{2}$  mile NW. of road. Road bends NNE.
- 15 $\frac{1}{4}$  Road to **Kirjali** (see Route 133) branches l. and NW. Route turns NE.
- 17 $\frac{1}{2}$  **Erikli** village. Road bends SE. for  $\frac{3}{4}$  mile, and then NNE., following a ridge. Several wells along the road in this neighbourhood.
- 27 Alt. 1,506 ft.
- 27 $\frac{1}{2}$  **Sarnich** village. Road descends in same general direction to the valley of the **Burgas**.
- 29 $\frac{1}{2}$  Road crosses the **Burgas** by a wooden trestle bridge 300 yds. long (1909). **Kushi-Kuvak**, a small village with a few large houses in a fertile well-cultivated valley. It has a good tobacco trade, and a weekly market, where mules are sold. Military dépôt at N. end of village.
- Branch road from **Mestanla** (see Route 133 at mile 36 $\frac{1}{4}$ ).
- General direction of route changes to E. by N. Road rises slowly.
- 36 $\frac{1}{4}$  Alt. about 1,800 ft. Several springs along the road.
- 41 $\frac{1}{4}$  Alt. 2,132 ft.
- 44 $\frac{3}{4}$  **Papasköi** village  $\frac{1}{4}$  mile S. of road.
- 46 $\frac{1}{4}$  Road turns sharply SE. along side of a ridge.
- At this point a track diverges N., and after  $1\frac{1}{2}$  mile bifurcates to **Mustafa Pasha** (see Route 136) and to **Hebibchevo** (see Route 137).
- 50 $\frac{1}{2}$  General direction changes to E. and road winds much.
- 54 $\frac{1}{2}$  Road turns NNE. Alt. about 2,130 ft.
- 55 $\frac{1}{2}$  Road resumes its E. direction.
- 62 $\frac{1}{4}$  **Ortaköi**, alt. about 400 ft.
- Branch road SE. to **Demotika** (see Route 140). Route descends in a NE. direction.
- 65 $\frac{1}{2}$  Arda river  $\frac{1}{4}$  mile N.
- 68 $\frac{3}{4}$  Road reaches r. bank of the Arda at **Sarahasar**. Alt. 197 ft.

miles

Ford and ferry across river to **Kumarli** on l. bank, whence there is an alternative unmetalled road down l. bank of the Arda to **Marash** on the Maritsa,  $2\frac{1}{2}$  miles from Karaagach (see mile  $85\frac{1}{2}$  below). There appears to be a track between Marash and Karaagach, but no bridge over the Arda other than the railway bridge.

Route follows the r. bank of the Arda closely.

$75\frac{3}{4}$  **Kiormut** (Keremidli) village on river  $\frac{3}{4}$  mile N. of road. Ford and ferry leading to **Sederli** on alternative l. bank route.

80 **Dujaras** village. Ford and ferry leading to **Ipcheli** on alternative route.

Road passes under railway and reaches—

$85\frac{1}{2}$  **Karaagach**, on r. bank of Maritsa. Adrianople railway station  $\frac{3}{4}$  mile S.

$87\frac{1}{4}$  Road joins road from Dedeagach (Route 139 at mile 81), and crosses the Maritsa and Tunja.

$87\frac{3}{4}$  **Adrianople**, alt. about 130 ft.

## ROUTE 136

(GUMULJINA)—PAPASKÖI—MUSTAFA PASHA,

31 miles

From Gumuljina to  $1\frac{1}{2}$  miles beyond Papasköi by the Adrianople road (see Route 135, miles 0– $46\frac{1}{4}$ ). From that point onwards a track only, which involves fording the Arda : but under suitable conditions this route might provide a passage from S. to N. of the Arda.

miles

0 From mile  $46\frac{1}{4}$  ( $1\frac{1}{2}$  miles beyond **Papasköi**) on Gumuljina–Adrianople road (Route 135) track leads N.

$1\frac{1}{2}$  Track to Hebichevo branches NW. (see Route 137). Alt. 2,296 ft.  $\frac{1}{4}$  mile N.

Track turns NNE.

miles

3 $\frac{1}{2}$ **Hojaköi.** Track turns E.4 $\frac{1}{4}$ 

Track turns ENE.

5 $\frac{3}{4}$ **Manguf** (Mankov), Christian village; Mohammedan village of same name  $\frac{3}{4}$  mile WNW. Track turns N. by W., running along high spurs, and crossing two shallow valleys.8 $\frac{1}{4}$ **Kuchashla.** Track turns NNE. along spur, and descends to the Arda.10 $\frac{3}{4}$ **Arda** river. No bridge shown; probably a ford. How far it is passable depends on time of year and state of river. (See under Kirjali, Route 133 at mile 45 $\frac{1}{4}$ .)11 $\frac{1}{4}$ **Silbikim**, alt. 361 ft. Here track becomes a road, along which route turns SE.11 $\frac{3}{4}$ 

Cross an affluent of the Arda. Ascend ridge. Descend into valley of another tributary of the Arda.

12 $\frac{1}{2}$ 

Cross stream. General direction changes to ENE. Road ascends ridge and descends into upper valley of third tributary.

14 $\frac{1}{2}$ 

Cross stream. Road runs up its valley.

16 $\frac{3}{4}$ 

Road leaves valley and ascends ridge E.

17 $\frac{1}{4}$ 

Summit of ridge.

18

Road begins to descend into valley of an affluent of the Maritsa.

18 $\frac{1}{2}$ 

Alt. 722 ft. Road crosses stream, and ascends hills obliquely on N. side of valley.

21

Road turns sharply N. across ridge, and descends into valley.

21 $\frac{3}{4}$ 

Cross stream and ascend hills N.

22 $\frac{3}{4}$ **Karabagh**, alt. about 820 ft. From this point several tracks lead NE. and ENE. down into Maritsa valley. Road continues N.23 $\frac{1}{2}$ 

Road bends NW.

25 $\frac{1}{4}$ 

Road turns NE. and proceeds along ridge, falling gradually.

28 $\frac{1}{2}$ 

Road crosses railway and enters Maritsa valley.

miles	
30	Bank of Maritsa, up which road turns.
30½	Join main road from Philippopolis (Route 141 at mile 174) and turn SE. over bridge.
31	<b>Mustafa Pasha.</b>

## ROUTE 137

(GUMULJINA)—PAPASKÖI—HEBIBCHEVO, 39¾ miles.

Like Route 136, this is a track route involving the crossing of the Arda, which might be fordable under suitable conditions.

miles	
0	From mile 46¼ (1½ mile beyond <b>Papasköi</b> ) on Gumuljina-Adrianople road (see Route 135) the route follows the Mustafa Pasha track (Route 136).
1½	Track leaves the Mustafa Pasha route, which proceeds NNE., and branches NW. along ridge. Alt. 2,296 ft. ¼ mile to N.
3¼	<b>Chair.</b>
5½	<b>Yukari Meneke.</b> Track turns sharply W.
6½	<b>Ashagi Meneke.</b> Track turns N. across hills.
8½	<b>Balija.</b> Track descends valley of a small stream.
10½	<b>Arda</b> river. Track turns W. ascending spur.
11¼	<b>Gedikler.</b> ? Ford at this point, or at <b>Mahmudli</b> , 1¼ miles W. Track on farther bank runs NE. for ¾ mile, then N. up side valley.
13¾	<b>Topolovo.</b>
16¾	<b>Juzhno (Kadiköi).</b>
20	<b>Injeli (Tönkovo).</b> Gold mine 1 mile N.

Branch road runs N. to **Knyas Borisovo** (Karashli), 5 miles, thence ENE. to **Leshnikovo** (Pandakli), 13 miles.

Route runs ENE. along N. slopes of **Besh Tepe Dag.**



miles

25 $\frac{1}{2}$	<b>Sorgunlii</b> (Verbovo).
28 $\frac{1}{2}$	<b>Kozluja</b> (Oryashets). Road proceeds ENE.
29 $\frac{3}{4}$	Alt. 764 ft.
31 $\frac{1}{4}$	Branch roads (i) NW. to <b>Leshnikovo</b> (Pandakli), 5 miles; (ii) SE. to <b>Mali Gradishte</b> (Alvandere), 3 miles.
	Road continues NE. down valley of affluent of Maritsa.
35 $\frac{3}{4}$	<b>Lozen</b> (Dinikli). Here road leaves valley, climbing hills obliquely NE., then descends into Maritsa valley.
39 $\frac{1}{4}$	Cross railway.
39 $\frac{3}{4}$	<b>Hebibchevo</b> (Lyubimets), alt. 240 ft.

## ROUTE 138

## DEDEAGACH—GUMULJINA

## ROUTE (A), 36 miles

The road is metalled and fit for motor transport as far as Makri. The rest of the route is a track fit for wheeled traffic, and provides a better and shorter line of communication between Dedeagach and Gumuljina than the other route. Its conversion into a chaussée throughout was reported to have been begun in 1909, and may now have been finished. See also under mile 11 $\frac{3}{4}$ , below.

miles

0	<b>Dedeagach</b> , alt. 49 ft. The Bulgarians are reported to have destroyed all roads near Dedeagach (March 1916). Road leaves in a W. direction close to the coast and crossing many small streams flowing from the N.
7 $\frac{1}{2}$	<b>Makri</b> , a town on a spur above the sea. Alt. 262 ft. The route follows a track turning inland in a NNW. direction and ascending the hills.
11 $\frac{3}{4}$	<b>Sagirlar</b> village.

miles

From this village a track, probably not fit for wheeled traffic, winds NE., E., and then SE. through the hills *via* **Dillen** ( $3\frac{1}{2}$  miles) and **Chaliköi** ( $6\frac{3}{4}$  miles), whence there are three tracks, all approximately of equal length, leading to **Dedeagach** (11 miles).

From Sagirlar the route runs NW.

13 $\frac{3}{4}$  **Hotular** village. The track begins to descend gradually.

14 $\frac{3}{4}$  **Hassanlar** village.

A track branches NE. to **Choban Köi** ( $2\frac{1}{2}$  miles) on the railway.

17 A track branches N. to **Köpekköi** ( $\frac{1}{2}$  mile) and thence to **Kösse Mejid** railway station ( $1\frac{1}{2}$  miles).

20 Track approaches the railway and follows it closely on the W.

22 Track crosses railway and recrosses it almost immediately.

24 $\frac{1}{2}$  Track crosses railway and turns W., running between the railway and the **Chaush Dere**, which are here close together.

26 $\frac{3}{4}$  **Demir Beyli** railway station. Confluence of the **Chaush Dere** with the **Yardinli Su**. Track turns N.

28 $\frac{1}{2}$  **Yabilli** village. Track turns NNW.

36 **Gumuljina**.

#### ROUTE (B), 42 miles

From **Dedeagach** to **Makri** as in the previous route, after which there is a track fit for wheeled traffic to **Maroniya**. Beyond that point it is fit only for pack transport. According to another authority the central section is the worst.

miles

0 **Dedeagach**.

7 $\frac{1}{2}$  **Makri**. The route continues as a track possible for wheeled traffic along the coast in the same general direction.

miles

- 17 $\frac{1}{4}$       Track crosses the **Yali Dere**.
- 19 $\frac{1}{4}$       Track leaves the coast and strikes NW. along the slopes of the **Karakush Dag**h.
- 23 $\frac{1}{2}$       **Maroniya** village. The track runs along the foot-hills, crossing many streams.
- 26 $\frac{1}{4}$       **Hajilar** village. The track makes a détour to the N. round the headwaters of two streams.
- 31 $\frac{1}{4}$       **Fostanla** village. The track descends in a NW. direction.
- 32      Track turns NE. up the l. bank of the **Floru**.
- 34 $\frac{1}{2}$       Track turns N., crossing the Floru (two bridges).  
A track branches SSE. for  $\frac{3}{4}$  mile and then E. by N. to **Demir Beyli** station (6 miles) on the Salonica-Dedeagach railway.
- 36 $\frac{3}{4}$       **Kuchuk Doganji**.
- 38 $\frac{1}{4}$       Track crosses railway and follows it at about  $\frac{1}{4}$  mile distance to the E. to—
- 42      **Gumuljina**.

## ROUTE 139

DEDEAGACH—DEMOTIKA—ADRIANOPLE, 81 $\frac{1}{2}$  miles

WITH BRANCHES TO ENOS, KASHAN, AND UZUN KÖPRÜ

This route is a main line of communication following the line of the railway, and fit for motor transport throughout. It is marked on the War Office 1:250,000 map of 1912 as metalled only between Sufili and Urla, but has probably been remade. It follows the r. bank of the Maritsa throughout, whilst the hills to the W. of it are practically roadless. It thus provides a well-protected but narrow line of advance, leading directly from the Aegean to the strategical centre of Thrace at Adrianople.

The Maritsa has an average width of 200 yards and an average depth of 20 ft. throughout this route, and is unfordable, except perhaps at a few points in a dry summer. In

spring and winter the river is liable to floods, which inundate large areas on its banks, particularly E. of Demotika, near Sufli, from Bedekli to Ibsala, and at the mouth of the river.

The principal islands, which might be convenient for bridging the river, are SSE. of Demotika, and between Sufli and Mandra.

There are a number of ferries over the river (see below). The ferry-boats used are shaped like punts, and poled across the stream. They can carry 8 horses or 25 men at a time, and would be suitable for bridging purposes. About 30 small boats, carrying 4 men each, could be procured on this reach of the river, especially at Sufli. These ferries often cannot be worked in flood-time.

The hilly country on the r. bank of the river generally dominates that on the l. bank. The lower slopes of the hills are bare, with occasional patches of oak scrub: the higher slopes behind have thick woods of small oak-trees. The broader valleys are cultivated with corn and maize. There is a belt of mulberry plantations about 1,000 yards deep from Mandra to Karabunar.

miles

- |                 |  |
|-----------------|--|
| 0               | <b>Dedeagach</b> , alt. 49 ft. The Bulgarians are reported to have destroyed all roads near Dedeagach (March 1916). The road leaves Dedeagach in an E. direction at a short distance from the coast. |
| $\frac{3}{4}$   | Road passes under railway.   |
| $1\frac{1}{4}$  | Cross stream.  |
| $3\frac{1}{4}$  | <b>Mohajir Kōi</b> (Obalar).   |
| $5\frac{3}{4}$  | Road skirts N. of marsh and crosses stream.  |
| 8               | Road crosses the <b>Ilija Dere</b> . Hòt springs S. of road. Road skirts S. slopes of hills.   |
| 13              | <b>Urunjik</b> , alt. 164 ft., in a wooded valley. The general direction changes to ENE.   |
| $15\frac{3}{4}$ | Road passes under the Bodoma-Ferejik branch railway.   |
| 16              | <b>Ferejik</b> , town on a small stream running into the Maritsa. Pop. 5,000. Remains of a Roman aqac-   |

miles

duct. Vineyards and silk manufacture. It is situated  $2\frac{1}{4}$  miles from the Turkish frontier.

From Ferejik a track fit for wheeled traffic leads E. by N. across the railway near the railway stations and the Kavarjik stream (bridged). At  $2\frac{1}{2}$  miles it reaches **Kaldirkoz** village on r. bank of Maritza, where there is a ferry for vehicles. The river forms the frontier with Turkey. From the ferry there is a track reported fit for wheeled traffic running S. across marshy ground to **Orfani** Farm ( $7\frac{1}{2}$  miles from Ferejik). It then turns SW. along the N. side of Lake **Gala**. At 11 miles it reaches **Pashala** Farm. It follows the W. shore of the lake and crosses stream  $\frac{1}{4}$  mile below the outlet from the lake. The track then follows l. bank of stream to **Enos** (20 miles). From Kaldirkoz another track reported fit for wheeled traffic leads E. to **Kazakköi** (6 miles from Ferejik), then E. by S. to join the Enos-Ibsala track (9 miles), up which it turns NE. to **Ibsala** (13 miles), a Turkish village at the head of a motor road to **Keshan** (15 miles from Ibsala) from which there are roads ENE. to **Rodosto** (about 49 miles from Keshan), SE. to **Gallipoli** (about 46 miles from Keshan), and SW. to **Enos** (about 38 miles from Keshan).

From Ferejik the general direction of the route changes to NNE. over low wooded hills parallel to the railway at a distance of  $\frac{3}{4}$  mile to  $1\frac{3}{4}$  miles from it to the NW.

18

Bridge over the **Kavarjik**.

19 $\frac{1}{2}$ 

**Saranla.**

A track diverges NE., crosses the railway, and runs round the S. side of the Merkhamla spur to **Kermekli** (7 miles), where there is a ferry over the river to **Ibsala**.



miles

24 $\frac{1}{2}$ **Köpekli.**27 $\frac{1}{4}$ 

**Bedekli** village, alt. 112 ft. E. of this point there is a stone bridge over the old bed of the river to **Khanjas**, and thence ferries over the main stream to **Sarkhanla** and **Balabanjik**, on the N. and S. banks of the Ergene.

The general direction changes N. and the road follows the railway closely along the foot of the hills.

27 $\frac{3}{4}$ **Bedekli** railway station.29 $\frac{1}{2}$ **Seimenli.**

32

**Chumlekji Köi.**34 $\frac{1}{2}$ **Vakuf.**35 $\frac{1}{2}$ 

Cross stream (bridge).

37 $\frac{1}{4}$ **Derbend Karabunar.**39 $\frac{3}{4}$ 

**Sufili** (Sofula) town and railway station. Situated on the slopes of low hills covered with vineyards. Pop. 4,000, mainly Greek. Silkworm culture; many water-mills on the Maritsa, and a ferry for vehicles to **Yedi Köi** on l. bank.

40

Road passes under railway close to N. end of station.

40 $\frac{1}{2}$ 

Road recrosses to W. side of railway and closely follows it.

42 $\frac{1}{4}$ 

Road recrosses railway.

44

Road recrosses railway.

44 $\frac{3}{4}$ 

Bridge over the **Kayajik Mandra Dere**. Cross frontier into Turkey. **Mandra** village to N. of bridge. Road turns E. along the foot of wooded hills.

47

**Saltiköi**, alt. 180 ft. S. of village there is a ferry across the river to Alimbey Köi.

Road turns ENE.

51

**Karabunar.**

52

Road crosses to SE. of railway.

52 $\frac{1}{2}$ 

Road recrosses railway. The Maritsa is here close to the road, and there is a ferry.

55 $\frac{1}{4}$ 

Road turns N.

miles

56 $\frac{3}{4}$ 

Road crosses the **Kizil Deli Chai**. **Demotika** town on l. bank, 2 miles above its confluence with the **Maritsa**. Alt. 100 ft.

A road branches NW. to **Ortaköi** (see Route 140). A track reported fit for wheeled traffic branches SE. along the l. bank of the **Kizil Deli Chai** to its confluence with the **Maritsa** (2 miles). Ferry across river (two channels) and then from E. bank a track leads in a general ESE. direction to **Uzun Köprü** (12 $\frac{1}{2}$  miles), which is on a main road to **Keshan**. **Uzun Köprü** station, on the **Adrianople-Constantinople** railway, is 2 $\frac{1}{4}$  miles N. of the town.

57 $\frac{3}{4}$ 

**Demotika** railway station, alt. 69 ft. From this point the railway follows the course of the river E. to **Kuleli Burgas** station, which is the junction of the **Dedeagach** railway with the main **Adrianople-Constantinople** line, and where there is a railway bridge over the **Maritsa**.

From **Demotika** station a track reported fit for wheeled traffic runs in a general E. direction to the N. of the railway to **Arnaut Köi** (5 $\frac{1}{2}$  miles). From here it continues SE., crosses railway (7 miles from railway station) and crosses the **Maritsa** by an iron bridge of 13 spans of 111 ft. each, whence it continues ESE. to **Eski Köi** (7 $\frac{3}{4}$  miles) and SE. to **Uzun Köprü** (12 $\frac{1}{2}$  miles).

The **Adrianople** road now strikes N. by E. across the low spur round which the river and railway run.

63 $\frac{3}{4}$ 

**Urla** village. The road joins the **Adrianople-Constantinople** railway.

65

**Urla** station. Road passes under railway and crosses the marshy valley in a NNE. direction.

66 $\frac{1}{2}$ 

Bridge over a tributary of the **Maritsa** which flows

miles

from N. to S. parallel to the Maritsa and about  $3\frac{1}{2}$  miles to the W. of it.

**Ömer Bey** village.

From this village a road runs S. along the l. bank of the tributary, passes **Sofular** village (3 miles) and **Serai Kõi** ( $5\frac{1}{2}$  miles), where it crosses the tributary and railway and follows railway to **Kuleli Burgas** ( $6\frac{3}{4}$  miles) and Kuleli Burgas railway station ( $7\frac{3}{4}$  miles).

From Ömer Bey the route follows the l. bank of the tributary closely.

- 68      **Shaminji.**
- $70\frac{1}{4}$     **Kliseli.**
- $71\frac{3}{4}$     **Yenioglu.**
- $75\frac{1}{2}$     **Akhor Kõi.**
- 81      Road from Gumuljina enters from SW. (see Route 135 at mile  $87\frac{1}{4}$ ). Bridge over **Maritsa**.
- $81\frac{1}{4}$     Bridge over **Tunja** on outskirts of Adrianople.
- $81\frac{1}{2}$     **Adrianople**, alt. about 130 ft.

## ROUTE 140

**DEMOTIKA—ORTAKÖI**,  $24\frac{1}{2}$  miles

This road appears to be unmetalled, but is reported as fit for wheeled traffic. It has a telegraph line accompanying it on the section Kara Jali to Ortaköi. It is important as being the only cross-road connecting the roads Gumuljina-Adrianople (Route 135) and Dedeagach-Adrianople (Route 139).

miles

- 0      **Demotika**, alt. 100 ft. The road leaves in a NW. direction up the l. bank of the Kizil Deli Chai along the foot of the hills to the NE. of the valley.
- 2      **Bulgar Kõi.**

miles

5½	<b>Kadiköi</b> N. of road.
10½	<b>Kara Jali</b> . Road turns W.
13¾	<b>Emledin</b> , alt. 294 ft.
16¾	<b>Kilkiköi</b> , alt. 350 ft. Road leaves valley and climbs NW. up a spur.
21	Summit of road and watershed. Road descends steeply N.
21½	Cross the <b>Ataran Dere</b> .
21¾	<b>Drebishna</b> , alt. 140 ft. Road turns NW. and crosses a low ridge.
24½	<b>Ortaköi</b> , alt. about 400 ft. (see Route 135 at mile 62¼).

## ROUTE 141

SOFIA — TATAR BAZARJIK — PHILIPPOPOLIS —  
HASKOVO — HEBIBCHEVO — MUSTAFA PASHA —  
ADRIANOPLE, 194½ miles

This is part of the high road from Belgrade to Constanti-  
nople; a main line of communication, metalled throughout,  
and fit for motor transport, although it has one difficult  
section between miles 30 and 50.

miles

0	<b>Sofia</b> , alt. 1,746 ft. Road starts SE. and runs parallel to railway at average distance of 1½ miles S.
2¾	Cross stream.
5¾	<b>Gorublyane</b> , ¾ mile S. Road to Samokov branches S. (see Route 115 at mile 29¼).
6	Cross the <b>Golem Isker</b> .
6¼	Cross the <b>Stur Isker</b> .
6¾	Branch road SSW. to meet Samokov road in 2¾ miles (Route 115 at mile 26¾).
7	Another road to Samokov branches SE. (see Route 115 at mile 16¼).
	General direction now ESE. across plain.

miles

15½

**Novi Han.**

Branch roads :—

(i) NW. to station 1½ mile, and **Novoseltsi** (4¾ miles).(ii) S. to **Samokov** (see Route 115 at mile 8½).

17¾

Cross railway.

18¼

Recross railway. Road begins to ascend.

19¼

Recross railway. Cross **Gabra** stream. **Pobit****Kamik Han.**

22

Direction SSE. Track from **Doganovo** enters from N. (4¾ miles).

23

**Vakarel**, with station. Alt. 2,696 ft. Inhabitants of Hungarian descent, with characteristic dress. Road to **Samokov** branches SW. (see Route 115 at mile 8½).

24

Railway crosses road.

25¼

Alt. 2,388 ft.

26

Railway recrosses road.

28

Alt. 2,252 ft.

33¾

**Ikhtiman**, alt. 2,067 ft. (see Route 116), pop. 400. Small town in plateau surrounded by wooded hills.

Branch roads :—

(i) WNW. to **Kalkovo** (14 miles ; see Route 115 at mile 9¼).

(ii) W. to station (1 mile).

37

Cross stream. Road runs along western edge of **Belitsa Planina**.

38½

General direction changes to SE. Railway ¼ mile SW. of road turns S. through the Sulu gorge into the Maritsa valley.

A track follows railway and joins Samakov-Tatar Bazarjik road (Route 117 at mile 18½) at **Banya-Kostenets** station (6 miles).

Road enters hills and ascends.

41¼

Summit of road, alt. about 3,280 ft.



miles

Descend into valley of an affluent of the Topolnitsa.  
 44 $\frac{3}{4}$  Road leaves valley, crosses a ridge, and follows up  
 the valley of a small stream.

47 **Palanka.** Road begins to descend small valley of  
 an affluent of Maritsa.

50 **Vyetren.** Road descends into Maritsa valley, skirt-  
 ing lower hills to N. of valley.

57 $\frac{1}{2}$  **Boshulya.**

60 Road leaves hills and crosses low-lying marshy land  
 (paddy-fields) between Maritsa and Topolnitsa, which  
 here converge.

63 Cross the **Topolnitsa.**

65 **Tatar Bazarjik.**

For routes converging on Tatar Bazarjik from S.  
 see Routes 102, 105, 117.

Road leading N. to **Pirdop** on Sofia-Kazalik road.

Route runs E. along plain of Maritsa.

68 Cross the **Luda Yana.** From l. bank there is a  
 branch road NNE. to **Golyemo Konare** (10 miles).

71 $\frac{1}{2}$  Road enters marshy ground.

74 End of marsh.

76 $\frac{3}{4}$  Branch roads :—

(i) NNE. to **Tsalapishta** (2 $\frac{1}{2}$  miles), thence NE.  
 5 miles to **Karnobolya** on road from Philippopolis to  
 Golyemo Konare.

(ii) SSW. to river ( $\frac{1}{4}$  mile) opposite **Palatovo** on r.  
 bank (it is doubtful whether a bridge exists).

Route runs close to river.

81 Cross stream close to confluence with Maritsa.

82 $\frac{3}{4}$  Road runs through marshy land.

86 $\frac{1}{4}$  Suburb of **Philippopolis** on l. bank.

Branch routes :—

(i) Road NW. to **Golyemo Konare** (13 miles).

miles

(ii) Main road N. to **Karlovo** (34 miles) on Sofia-Kazanlik road (with connexion N. across Balkans to **Plevna**), with (a) branch to **Krasnovo** (26 miles), **Koprivshitsa**, and **Lozhene** (about 49 miles) on the same road ; and (b) branch to **Sinjrili** (25 miles).

(iii) Road NE. to **Bryezovo** (22 miles).

(iv) Road ENE. to **Manole** (11 miles).

Road turns S. across river (bridge).

87 **Philippopolis** (Plovdiv), alt. 528 ft. at railway station. For roads converging on Philippopolis from S. see Routes 106 and 130.

Route leaves Philippopolis in E. direction, following r. bank of Maritsa.

94 Road crosses the **Stanimachitsa**  $\frac{1}{4}$  mile above its confluence with the Maritsa.

100 Railway approaches road from S. Road enters marshy ground.

102 Cross railway.

103 $\frac{1}{4}$  **Papazlii** village and station, alt. 459 ft., pop. 800. Corn and bean trade with Constantinople.

Branch roads :—

(i) S. to **Izbegli** ( $7\frac{1}{2}$  miles).

(ii) NE. to **Chirpan** (14 miles), for **Stara Zagora**.

General direction of road changes to ESE. and it skirts low hills overlooking Maritsa valley. Railway between road and river, following river closely.

111 **Debr** (Dervent).

Branch roads :—

(i) WSW. to **Izbegli** (10 miles), and SSW. to **Delbok Izvor** (Korbunar), 6 miles (see branch (i) under Stanimaka, Route 130 at mile  $26\frac{1}{2}$ ).

(ii) NE. to **Borisovgrad** (Yeni Mahalle) town and station, pop. 1,880.

miles

115 **Belareka** (Chitak).119 **Verbitsa** (Kayali).

Branch roads :—

(i) S. by **Bodrovo** and **Susam** to **Arsenik Banya** (9 miles) near **Bryestovo**.(ii) Road NNE. to **Skobelevo** village on railway ( $3\frac{1}{4}$  miles), thence NNW. by wooden bridge across **Maritsa** to **Chirpan** ( $12\frac{3}{4}$  miles).124 **Gorski Izvor** (Kurucheshme).128 $\frac{1}{4}$  **Klokotnitsa** (Semikhcha). Cross the Dobrich.131 $\frac{1}{2}$  Road turns S. by E.133 Branch road N. by E. to **Kamenets** (Kayajik) village and station for **Haskovo** (9 miles). Wooden bridge over **Maritsa** and track running N. to **Semenli-Stara Zagora** road.134 **Haskovo**, alt. about 650 ft.

For road from S. see Route 134.

Road takes general E. direction, following valley of **Olu Dere**.136 Branch road NE. to **Uzunjovo** (4 miles).140 $\frac{1}{2}$  **Podkrepa** (Guvendikli) N. of road.143 **Stoykovo** (Duralii).145 $\frac{1}{2}$  Road leaves **Olu Dere** valley and strikes N. up hills.

146 Resume E. direction along ridge.

147 $\frac{1}{2}$  Branch road W. by N. to **Uzunjovo** up the **Bok Dere** valley ( $7\frac{3}{4}$  miles).

149 Alt. 803 ft. S. of road. Road descends.

151 $\frac{1}{2}$  Alt. 561 ft. Road winds down E. and S.153 $\frac{1}{2}$  **Harmanli**, pop. 4,154, on low hills above **Maritsa** valley.

General direction of route SE.

154 $\frac{3}{4}$  **Harmanli** station, alt. 282 ft.155 $\frac{1}{2}$  Railway crosses road. Road runs close beside river, with railway SW. of it.157 $\frac{1}{2}$  River diverges NE. from road, and pursues winding course  $\frac{3}{4}$  to  $1\frac{1}{2}$  miles distant from road,

miles

158½      Railway crosses to E. side of road, which runs along foot of hills overlooking Maritsa valley.

159½      Alt. 429 ft.

160      Railway crosses road and both turns E.

163½      Road resumes SE. direction.

165½      **Hebibchevo** (Lyubimets) town and station, alt. 240 ft., pop. 2,998.

A track leads SW. to Papasköi on the Gumuljina-Adrianople road (see Route 137).

Road runs SSE.

167¼      Railway crosses road.

171¼      Railway recrosses : road turns ESE.

171½      **Mustafa Pasha** station ¼ mile SW. by road.

174      Track from Papasköi on the Gumuljina-Adrianople road joins the route (see Route 136 at mile 30½).

174¼      Road crosses the Maritsa by stone bridge.

174½      **Mustafa Pasha**, pop. 4,000.

Road now takes general ESE. direction, and runs along foot of hills overlooking Maritsa valley from N. at distance of 1½ miles from river. Cross numerous streams, affluents of Maritsa. Railway accompanies river on S. bank.

176½      Cross frontier into Turkey.

179½      A track branches SW. to river bank and thence to **Kadiköi** station (2 miles ; ? ford).

182½      **Viran Teke**.

193½      Bridge over the **Tunja**. Suburbs of Adrianople.

194½      **Adrianople**, alt. about 130 ft.

## CHALKIDIKE

### GENERAL GEOGRAPHICAL CONDITIONS

The peninsula of Chalkidike is shaped like the back of a hand clutching the Aegean Sea. The wrist is the northern depression, containing Lakes Beshik and Langaza, cutting it off from the mainland of Macedonia. The knuckles are the mountain ranges which cross the main body of the peninsula from E. to W. The fingers are the promontories of Cassandra, Longos, and Athos.

The peninsula is bounded on the W. by the Gulf of Salonica, on the S. by the Aegean Sea, on the E. by the Aegean Sea, with the gulfs of Orfano or Rendina and Erisos, and on the N. by the lakes Langaza and Beshik, representing what remains of the Gulf of Rendina, which has been forced back by alluvial deposits.

The peninsula was probably joined at one time to the continent by an isthmus NW. of Salonica, about 5 miles wide, and hardly 130 ft. high ; otherwise it was completely surrounded by the sea.

The main dimensions of the peninsula are as follows :—The width of its northern boundary, along the line of the lakes, from the Gulf of Salonica to the Gulf of Orfano, is about 40 miles. Its greatest width, along an oblique line from Cape Karaburun in the north-west to the extremity of Athos in the south-east, is about 90 miles, or from the same starting-point due E. to Cape Eleuthera, about 60 miles. Its length, from the northern boundary on Lake Beshik to the head of the Gulf of Cassandra, is about 28 miles, or from the same northern line to the southern extremity of Cassandra, Cape Kokino, about 55 miles. The length of the southern promontories, measured from the neck of each isthmus along their centre lines to their extremities, is : Cassandra, about 32 miles ; Longos, about



24 miles ; Athos, about 30 miles. The total land area of the peninsula is about 1,800 square miles.

The geographical conditions of the peninsula are determined—(i) by its isolation from the mainland of Macedonia ; (ii) by its mountainous nature ; (iii) by its lack of valleys ; (iv) by the length and nature of its sea-coast.

(i) Although physically continuous with the mainland of Macedonia, and economically developed (so far as this has been done) as a supply district for Salonica, Chalkidike belongs geographically to the Aegean island-system, not to the mainland. This is due partly to the big depression along the line of Lakes Beshik and Langaza, of which use was made in ancient times by the *Via Egnatia*, partly to the mountain-barrier which stretches right across the peninsula just south of this depression, partly to the trend of the mountain valleys towards the great bays of the south and south-east, which invite development from the side of the Aegean.

(ii) Except for the short valley of the Vasilika in the north-west, and some narrow strips of coast-plain along the Gulf of Salonica, at the head of the Gulf of Cassandra, and on the Gulf of Erisos, the whole peninsula is mountainous—so much so, that there are no large centres of population, but only scattered villages ; no ‘ through routes ’, but only local paths, linked up as occasion has demanded ; whilst the coast routes are driven on to the shore, the inland routes are constantly forced to climb high crests and passes ; and many villages close to the sea are situated at a great height above it. As a result, the country is exceedingly difficult to traverse.

(iii) Apart from the line of lakes in the north, the Vasilika in the north-west is the only river that waters any considerable plain. Even on the south-west coast the streams run in an almost straight line from the mountains to the sea, and there is no breadth of coast-plain. At the heads of the gulfs of Cassandra, Athos, and Erisos, there are small estuary-plains rather than coast-plains. Wherever the land can be cultivated it is so, but the available area is small.

(iv) Although the land-area of the peninsula is not great,

the length of its sea-coast is out of all proportion. On a rough estimate, not counting innumerable minor indentations, it is about 350 miles. On the SW. and NE. coasts, and at the heads of the gulfs of Cassandra and Athos, it is, on the whole, sandy, and (although only for a short distance inland) fairly flat. At some points on these coasts, and almost consistently upon the three promontories, it is steep and rocky. In the gulfs, and at a few points on the promontories, there are natural roadsteads and harbours. But there is no port properly so called, and only two places where arrangements have been made for the loading of minerals on steamers and sailing-ships. Nevertheless, the whole trend of the country is towards the sea, and it is from this direction that its future development is most probable.

#### MOUNTAINS

The peninsula is an independent mountain-mass of crystalline rock, which is connected with the N. group of mountains of the mainland by a depression lying N. of Salonica, and only a few feet above the sea-level; the heights culminate in Mt. Cholomonda, and send out three secondary ranges towards the SE. into the Aegean Sea, so that these form three separate peninsulas, Hagion Oros (Athos), Longos, and Cassandra. As the mean height of the range one can take 2,300 to 2,600 ft.; for the cone-shaped summit of Mt. Hortach, 3,937 ft., the summit of Cholomonda, 3,412 ft., and Mt. Athos, 6,348 ft., are quite isolated, and do not really affect the general level.

1. **Mt. Cholomonda.** The Cholomonda massif is bounded on the W. by the depression line of the Lanjik-Lakos stream, which continues northwards at varying heights, to the plain of Lake Beshik; on the E. by that of the Miliada river, which also extends across the basin of Larikovi, and as far as the plain of Lake Beshik; on the S. by the Gulf of Cassandra; and on the N. by the plain of Lake Beshik.

The highest point of Cholomonda lies about  $4\frac{1}{2}$  miles in

a bee-line to the SW. of Larikovi, towering above the high saddle (3,412 ft.) 164 ft. below it, and reaching a total height of about 3,600 ft. It is particularly suitable as a first-class point for triangulation, as it can be seen in all directions ; for instance, from Olympus and Ossa, from the three southern peninsulas, and from all the other mountains of the peninsula.

The backs of these mountain massifs are broad, their tops round and generally relatively little above the general level ; the slopes appear steep from the valleys, and sometimes (e. g. from the plain of Lake Beshik and the Gulf of Cassandra) rather rugged ; then, however, flattening themselves out in terraces. The mountain mass is crowned with fine forests of beech intermixed with some oaks. The northern slopes of these mountains are open and fertile on the flat parts. The southern slopes, that is, down to the Gulf of Cassandra, are covered with low undergrowth, and, near the villages, with fertile gardens and fields.

**2. Mt. Hortach.** This is the name given to the mountain (3,900 ft. high) lying almost due E. of Salonica, appearing cone-shaped from some points, and rising 600–900 ft. above the general level of the ridges, so that it is visible from a long distance. The name Hortach should strictly apply only to this one mountain, but, for convenience, it has been given to the whole range, extending to the Gulf of Erisos. Really, it only dominates to the NW. as far as the Salonica–Seres road, and to the SE. to the town of Livadi, where Mt. Anastasia begins.

**3. Mt. Anastasia,** called after the monastery of the same name, joins directly on to the principal mass of Mt. Cholo-monda, and rests northwards on the plain of Lake Beshik, as does Mt. Hortach. Whilst the spurs of Mt. Hortach are broader, more branched, and better cultivated on their lower slopes, those of Mt. Anastasia are sharper, and appear jagged owing to the presence of numerous but unimportant summits and peaks. This, however, applies only to the upper ridges, which are partly bare, and partly covered with scrub. The terraces and slopes on either side are moderately steep, well

cultivated, and practicable. The highest point of this range is probably not more than 2,900 ft. The height of its saddles varies between 1,900 ft. and 2,600 ft. Although the flatter parts of both these mountain ranges are very fertile, bearing all kinds of corn and vines, and amongst their shrubs the oleander, yet when the spring gives way to summer everything becomes dried up, giving a most depressing effect, the more so as the luxuriant gardens existing in one or two places cannot be seen in the distance.

4. **Stratonikon Oros.** This range is separated from the other mountain masses of the peninsula by the Lipsasa stream, by the basin of Larikovi, and by the Viavitzza. To the N. it is bounded by the plain of Lake Beshik. To the E. it is washed by the gulfs of Orfano and Erisos.

The three summits, of which the highest is 2,460 ft., give the principal range, to the NE. of Larikovi, the shape of a hook, turned in towards the south, while the ridge of the most easterly of the three summits extends in an almost straight line to Cape Eleuthera, and there descends steeply to the sea.

The upper parts, as well as the whole S. slopes, as far as the Gulf of Erisos, are covered with fine oak and beech woods, with the exception of the cultivated parts round Izvoron, and the luxuriant meadowlands in the little valleys of the principal mass. The shores of the Gulf of Erisos are covered with plane-trees, beeches, and oaks.

On the southern slopes of this mountain, and to the S. of Izvoron, as well as in Mt. Kakavos in the S. and W., lie the mineral workings referred to elsewhere.

5. **Mt. Kakavos (Arvanit).** The chief massif of this mountain, whose highest summit is 2,100 ft., joins on one side Mt. Cholomonda, and on the other side Stratonikon Oros, and extends in a curve from W. to E. Covered with woods almost throughout in its upper parts, it falls steeply towards the S. to a height of 980 ft., then sends out a ridge in a SW. direction, as far as the Gulf of Cassandra. This ridge branches out to the right, then to the left, gradually decreases in height to 600-500 ft., and then breaks off again



at the coast, and extends again in a SE. direction as far as the isthmus of Longos. At Diaporos Island it is only joined to the peninsula of Longos by means of a saddle a few feet high. At the gulfs of Cassandra and Hagion Oros, these hills break off in black walls of rock, often overhanging.

This low range of hills, which surrounds the whole Gulf of Hagion Oros to the N., is most fertile, but the population is not sufficient to carry on the cultivation. Timber forests are found here and there, but, as in the uncultivated parts of the southern slopes of Mt. Cholomonda, the soil is covered principally with scrub 3-9 ft. high, which gives the impression of a botanical garden, because of the variety of the shrubs and plants. Here, as in the other parts of the mountains, the valleys have not a wide bottom; in places they open out into fairly large basins where the side streams flow into them, and are then very fertile. Particularly on the coast, they often take the shape of gorges, in which the waters are held between high walls, sometimes overhanging. There are no means of communication except bad mule-paths, and trade is quite stagnant. From the E. part of the chief massif, that is, Mt. Kakavos proper, the hills fall in a tangle of wooded ridges towards the S. to a height of 650 ft., bounded by the Miliada river on the W., and by the Gulf of Erisos on the E. From there they turn sharp to the E., to the fertile hill chain of Erisos, and end almost at the level of the sea, in the isthmus at Problaka, at the old Xerxes' Canal. This last-named hill chain falls precipitately to the coast on the S.; towards the E. it slopes down more gently.

6. **Vavdos-Vilya** range. The chief ridge of this mountain extends parallel to the plain of Vasilika, and at a distance of from 1-3 miles to the south, in a somewhat curved line from E. to W., from the town Vavdos W. of the Lanjik-Lakos stream, as far as Cape Tuzla on the Gulf of Salonica. On the map its height is given as 3,412 ft., but this may be an error; 2,950-3,100 ft. seems more probable.

It falls precipitously to the N. like a wall, and is covered with sparse scrub, with the exception of some flat and



cultivated parts near the coast. To the S. its slopes extend to the gulfs of Salonica and Cassandra, and find their continuation in the undulating hills of Cassandra.

If we consider these slopes as seen from the E., for instance from the heights of Polygyros, they appear like a plateau gently but continually sinking from the NE. towards the W. and S., into which streams have gradually eaten their way, and have cut it up into wide spurs and foot-hills.

This large part of the peninsula is on the whole open, and gives the impression of great fertility; but this is not turned to account. Towards the isthmus of Cassandra, the most populated part, it becomes flatter and undulating, and abounds in vegetation. Timber forests may be seen in the NE. parts, chiefly on the Lanjik-Lakos.

In proportion to its fertility, this hill country is poorly populated; and as trade is quite stagnant, there are no better means of communication than mule-paths.

7. **Hagion Oros (Mt. Athos).** This range is washed by the gulfs of Hagion Oros and Rendina, and by the Aegean Sea. It rises out of the flat isthmus, attains in the eastern stretch of 6 miles (in which the parallel ridges become higher and higher) a height of 490-650 ft.; falls again somewhat during a further course of 6 miles, and rises again in a S. direction to a height of 3,250 ft. just before the peak of Athos. From here the mountain rises suddenly to the summit-peak of Athos, 6,348 ft.

The whole of Hagion Oros, with the exception of the bare Mt. Athos, whose summit is crowned by the highest church in Christendom, is covered with woods, orchards, and vineyards.

8. The hills of **Longos (Sithonian Hills)** are washed on the E. by the Gulf of Hagion Oros, on the S. by the Aegean Sea, and on the W. by the Gulf of Cassandra. They rise out of the flat isthmus in two parallel ridges running in a SE. direction, which join about 9 miles farther on at the highest point of the peninsula (2,590 ft.). From there this main ridge extends 6 miles farther in the same direction, then falls from a height

of 1,738 ft. towards the E., S., and W., and throws out further spurs, some parallel to it, some running in an opposite direction, and some with round summits, which become low and flat towards the south, and finally disappear in the coastal plain. So far as can be seen the ground is largely covered with woods.

9. The undulating hills of **Cassandra** begin on the isthmus near the ruins of ancient Potidaea, extend in a curve along half the length of the peninsula in a SE. direction (where they attain the height of 984 ft.), and end in a row of equally high summits at Cape Nikolaos. In the first-mentioned half of the peninsula the height of these hills varies between 160 ft. and 490 ft.

From the heights of Polygyros one can survey the whole peninsula without discovering a wood anywhere. It is open and fertile.

#### VALLEYS AND PLAINS

(a) The plain of **Vasilika** is shut in on one side by Mts. Hortach and Anastasia, on the other by the Vavdos Vilya range. It lies quite open, almost treeless, between the coast and the town of Vasilika, and has no attraction once the harvest is over. Round Vasilika, on the contrary, there is not a spot of ground which could not be called a garden; cotton plants and vines, mulberry and fruit trees, nuts and ornamental shrubs are abundant.

(b) The basin of **Larikovi** lies nearly 2,000 ft. above the sea, shut in by heights crowned with oak and beech. The reason of this luxuriant vegetation lies in the basalt and basaltic conglomerate which predominate in the whole Cholomonda group, and are often exposed to view on the S. and E. slopes.

#### RIVERS

The rivers of the peninsula are alike in character. Averaging 20 ft. in width, their beds are full of great boulders, and in spite of their short course are always full of water, even in

midsummer. They are fed by powerful springs. Their valleys are narrow, widening only where tributaries join them. They have steep, rocky sides towards the coast.

## RESOURCES

### *Agriculture*

The peasants are almost everywhere agriculturists. In spite of the small extent of level or valley ground, they cultivate on a considerable scale, not only providing for their own immediate needs, but also sending the surplus produce of the land to market at Salonica. Vines, olives, figs, and mulberries (for the rearing of silkworms) are most grown on the higher ground ; corn, maize, sesame, a little cotton, rice, and tobacco on the lower. Among the fruits grown in these districts are cherries, apricots, quinces, plums, and pomegranates. Almonds, hazel-nuts, and pumpkins are also common.

Methods of agriculture are, of course, primitive : more could be made of the coast-plain, especially as regards the tobacco and silk industries, by scientific development. But in any case the cultivable area is so restricted that agriculture is never likely to be the main resource of the country.

### *Cattle-breeding, &c.*

Cattle are kept in a good many of the upland villages, but there appears to be little trade in them. The nomad Yuruks, of whom there is a settlement on the N. slopes of Mt. Hortach, are the principal cattle-owners. Sheep, goats, and pigs are occasionally kept. Bees are kept to an increasing extent, and honey and wax are sold. Silkworms are reared in many of the southern villages, where mulberry plantations flourish. But in none of these directions has much progress been made as yet.

*Fishing and Hunting*

There is good fresh-water fishing in Lake Beshik in the north. At Pazarkia, on the S. shore of the lake, is a fleet of 80 fishing-boats, and the fish caught are carried on mule-back, generally by night, to Salonica. There are fish in the lagoons at the mouth of the Vasilika river. Sea-fishing is carried on from some of the villages on the promontories and gulfs in the S., especially from Erisos. Game, including deer and wild boar in the mountain districts, is fairly plentiful ; on Longos it is killed in sufficient quantities for export.

*Charcoal and Ice*

Charcoal-burning in the forest of Longos and ice-making on the northern slopes of Mt. Hortach are of purely local importance.

*Textiles*

A primitive kind of weaving is carried on in some villages of the central part of the peninsula, woollen fabrics, cloth, and rough carpets being manufactured for export.

*Timber*

A considerable area of the peninsula is covered by luxuriant forests of pine, oak, beech, chestnut, and other trees (including elms, walnuts, poplars, cypress, ilex, arbutus, ash, juniper). Probably owing to lack of communication and loading facilities, these forests do not seem to have been exploited except in Cassandra, where they have been nearly destroyed. But it is probable that they constitute one of the principal sources of potential wealth in the peninsula.

*Minerals and Mining*

Undoubtedly the principal resource of the country, for which it was well known in antiquity, and is likely to become so again in the future, is its mineral deposits.

Metallic ores are found in the marble, quartz, and schist-veins of the Chalkidike Mountains. The richest district is that of Madenochoria (or Siderokapsa) in the NE., i. e. roughly the area covered by the Cholomonda, Khamilo Vouni, and Arvanit Mts., with an area of over 200 square miles. Even in antiquity, this mountain mass was mined both for iron and for silver-bearing lead-glance (galena). Considerable deposits of brown iron ore reach the surface.

The district of Chassia, in the SW. part of Madenochoria, is also rich in metals. Important strata of iron pyrites and lead compounds appear in the schist deposits between Polygyros and Molivoporgos (at the head of the Cassandra Gulf). On Cassandra itself, especially on its S. peaks (near Paliouri), iron pyrites occur in workable quantities. Longos, apart from a few chrome mines, has no special minerals to show, but its configuration makes prospecting difficult. In fact, outside the Madenochoria area there are only a few places in which chrome, iron-pyrites, silver-bearing lead, antimony, and manganese are worked, principally near Polygyros, Molivoporgos, Ormilias, and Paliouri.

Since 1893 the Société Ottomane des Mines de Kassandra, holding a concession in the name of the Constantinople Bank and Mr. Henrico Miorochi of Salonica, have mined antimony, gold-bearing pyrites, silver-bearing lead, and lignite near Izvoron. Between 1893 and 1907 about 1,000,000 tons of iron ore had been worked. The ore is carried by a light railway to Stratoniki (on the Gulf of Erisos), where it is smelted and shipped. The power station contains dynamos driven by steam engines with an output of about 500 h.p. The power is used for driving the ore-dressing plant and for haulage on the railway. There is a small repair shop in which the railway trucks are made and repaired; it would probably be capable of dealing with small repairs to submarines, &c. There is a small iron pier with a depth of about 16 ft. at the end, where ore is loaded into lighters, whence it is transhipped into steamers lying in the bay.

The same company also have some iron and antimony mines



on Cassandra, but these do not yield so much as those at Izvoron.

There is a chrome mine near Ormilía with a road running to a steamer-station at the head of the Gulf of Cassandra.

#### POPULATION

The number of the population, according to statistics gathered in 1903, is roughly as follows, the totals for each of the (then) Turkish Administrative Districts being separately assessed :—

Kalamaria district :	75 towns and villages :	25,000 inhab.
Cassandra	88 „ „ „	26,500 „
Hagion Oros (Athos)	33 „ „ „	6,000 „
Langaza district	37 „ „ „	15,000 „
Total	233 „ „ „	72,500 „

Of the 233 'towns and villages' mentioned above, only a few really deserve to rank as towns, viz. Galatista (4,000 inhab.), Polygyros (2,900), Izvoron (1,600), Larikovi (2,500), Pazarkia (800), and Karyaes (1,500).

The great mass of the population is scattered in small villages and hamlets. The total of 72,500 given above was made up in 1903 as follows :—

Greeks	60,200
Bulgarians	5,100
Turks, Gipsies, and Yuruks	3,700
Russians	3,300
Other nationalities	200
Total	72,500

But the population is even more predominantly Greek than would appear from these figures, for (i) the Turks and Bulgarians are almost confined to a narrow belt of villages along the northern boundary of the peninsula, on the southern shore of the lakes, and (ii) the Russians are confined to certain monasteries on Mt. Athos, or *metochia* (estates) in their possession. (Recent estimates put the total monastic population of

Athos at 7,000, of whom 3,000 are monks, and the remainder lay brothers.)

Turks and Greeks are found living peaceably side by side in a few villages ; but generally the population is unmixedly Greek. The people as a whole are sufficiently prosperous, comfortable, and contented. They are spared the anxieties of civilization. They escape the burden of military occupations. They are hospitable and inquisitive, and under their late government used to welcome the stranger as a possible liberator from the Turkish yoke. They are fond of excavating and bartering antiques. The villages are cramped, with steep and ill-paved streets. On the southern slopes of the Cholomonda range (on the north shores of the Gulf of Cassandra), those peasants whose lands lie at some distance from the village build little huts on them, and spend the summer there. Similarly the charcoal-burners of Longos have their separate hamlets in the forest. The better-class houses are built of stone, whitewashed, with slate roofs, and have a wooden gallery or balcony. The ground-floor rooms are used for farm purposes. The poorer houses, which, in some villages, predominate, have only a ground floor. These, too, are generally built of stone, but sometimes of wood, with their walls rough-cast and whitewashed.

#### GOVERNMENT

Under the Turkish occupation (1907) the peninsula, with its five districts, Adramesi, Pazarkia, Kalamaria, Madenochoria, and Chassia, and its outlying promontories of Cassandra, Longos, and Athos, was divided, for administrative purposes, into four *nahiés*, viz. : Kalamaria (capital, Galatista), Cassandra (capital, Polygyros), Hagion Oros (capital, Karyaes), and Langaza (capital, Langaza). The head of each *nahie* was called the *kaimakam*, and resided at the capital. The whole peninsula belonged to the *vilayet* of Salonica. The *vilayet* again was subject to the military governor at Monastir. No evidence is available from ordinary sources of information

as to the administration of the country since it has come under Greek rule.

The peninsula of Hagion Oros (Athos) is a semi-independent republic governed by the monks, who compose or control the great majority of the population.

The total number of monasteries on the peninsula is 20. One is Russian (Panteleimon, commonly called Rossikon), one Serbian (Chiliandari), and one Bulgarian (Zographou); the remaining 17 are Greek. They are all built in the form of a quadrangle, the open space within containing one or more churches; the buildings are in every case designed as fortifications, but have not been used as such since the Greek war of independence, during which the monks of Athos rose against the Turks, but were defeated, their guns taken away, and their buildings pillaged. In spite of this, however, the monasteries are still treasure-houses of Byzantine art, and contain large and generally well-preserved and catalogued libraries of books and MSS. It is possible that some of the monasteries were founded as early as the fourth century A.D., but their historical documents do not begin till the ninth century. The latest foundation is Stavronikita, 1542; this alone was founded after the taking of Constantinople by the Turks, and the fall of the Byzantine Empire. All the others were founded under the Empire, and still bear the title *vasilika* (imperial).

Besides the 20 monasteries, there are 14 *skētes* or priories, 250 *kellia*, and about 150 hermitages. A *kellion* is a small house containing, as a rule, 3 monks, one of whom is *geron* or elder. These monks are generally employed in handicrafts (images, icons, medals, &c.). A *skēte* is properly a colony of *kellia*, each having its own *geron* and being to some extent independent. But the *skētes* founded by the Russians are not of this type; they resemble a monastery in every way except that they send no representative to the general council of Athos, the Holy Synod. They are thus not politically enfranchised, but depend upon a mother-community.

Each monastery sends a representative (*antiprósopos*) to the Holy Synod, which meets at Karyaes. The representative of each monastery lives, with a few monks sent as his companions, in a house at Karyaes belonging to his own monastery. The *antiprósopos* of Lavra, which takes precedence of all the other monasteries, is *ex officio* chairman (*proedros*). The monasteries are divided into five groups of four each; and these groups act for a year each in rotation, together with the *proedros*, as a kind of executive and committee of the Synod. The rule of the Holy Synod was maintained unbroken throughout the Turkish dominion. The monks submitted to the Turks on the fall of Salonica (1430) on condition that they were allowed to preserve their liberty and their constitution; and the pledge was faithfully carried out till 1912, when Athos became part of Greece. There was a Turkish governor (*kaimakam*) resident at Karyaes, and a tribute was paid annually to the Porte.

There are two types of monastery, the coenobitic and the idiorrhythmic. The former resembles the ordinary types of monastery, in which the monks have all things common and live under a severe discipline in obedience to an abbot (called in Greek *igumenos*, leader) whose position is one of absolute authority. The idiorrhythmic type is peculiar to Athos and characteristic of it. A monastery of this kind is divided into a number of groups, each a more or less independent society of 6 to 12 members, and having a *gherondas* or elder as its head. The elder's rule is absolute within the group; but a monk may, if he dislikes his elder, leave the group, and become a 'free monk'. The free monks also include the three *epitropoi*, or stewards, and the sacristan. These officers are elected yearly. The monastery supplies every monk with firewood, vegetables, wine, and cheese, and an annual sum of about £2 10s. for other food, clothes, &c. Anything over and above this comes, in the case of an officer or priest, by way of salary; in other cases from the elder of the group to which a monk belongs. An elder generally has private means (monks may have money, e.g. in the bank at Salonica,

though they may not own land, &c.), on which he and his group to some extent live. He may bequeath his fortune to members of his group; a young monk whose elder has left him money may go away for purposes of study. The group has its meals together; most monks (*kaloyeroi*) have a novice (*dokimos*) as a servant; meat is allowed except on fast-days (this is not the case in coenobitic houses), and the discipline is not strict. A monk's attendance at service is not compulsory, but is controlled by public opinion. The elders together form the governing body, with an elected president.

The Russians play a more important part in Athos than is suggested by the fact that they have only one monastery. It is very large and wealthy, and has four large *sketes* at St. Andreas, Vatopedion, St. Elias, and Pantokrator. In 1902 there were 3,615 Russian monks as against 3,207 Greek, 340 Bulgar, 288 Roumanian, 53 Georgian, and 18 Serbian. This growing predominance of Russians in Athos has often been ascribed to political motives, and recent disputes in the community tend to confirm this view; but, although the immense majority of pilgrims who visit Athos are Russians (often numbering hundreds a day), their motives are purely religious.

The rule has been strictly enforced ever since 1045 that no women are allowed to enter the district, although the present Queen of Greece visited it during the Balkan War, and two American women entered in disguise. Moreover, no female animals are admitted, so that it is impossible to procure milk, butter, or eggs locally.

#### RELIGION

The vast majority of the population belong to the Greek Orthodox Church, and there are churches in all the larger villages. But, like the Bulgarians, and unlike their fellow countrymen of the mainland, they recognize the Patriarch of Constantinople, instead of the Metropolitan of Athens, as their head. The Greek religious propaganda has never succeeded in crossing the mountain barrier in the north of the peninsula.



In the villages along the northern end of the district, and in some parts of the Vasilika valley, where the Turks are in a majority, there are mosques. But owing to the geographical distinctness of the Turkish belt of population, there do not appear to be serious religious dissensions among the people. Orthodoxy is concentrated in the monasteries. There are also a great number of *metochia* scattered up and down the country, mostly in the cultivable valley-mouths and coast-plain. These are estates belonging to the monasteries, and cultivated either by the monks themselves or by their tenants. Monasteries and *metochia* together number 100 or more, and are an important factor in the economic as well as the religious conditions of the country.

#### ROADS AND TRACKS

Apart from a few suburban roads S. and E. of Salonica, which soon degenerate into tracks, the only roads in Chalkidike are :—

(i) The main road from Salonica, *via* Vasilika and Galatista and Resetnikia, to Polygyros,  $34\frac{1}{2}$  miles. This is described in the Itinerary, Route 142. It is a chaussée as far as Vasilika, but it is doubtful whether it continues as a road passable for vehicular traffic beyond that point.

(ii) A short road, 3 miles—unrepaired—from a chrome mine at Mandra to Pakchi Kuliba, at the head of the Gulf of Cassandra (see Route 146, under mile 10).

(iii) A short road, described as passable for carriages, from Zographou Monastery on Mt. Athos towards Rossikon Monastery, about  $2\frac{1}{2}$  miles (see Route 148).

(iv) An unrepaired road, used to a considerable extent by wheeled traffic, from the Gulf of Rendina (Orfano) along the line of lakes Beshik and Langaza, to the Salonica-Seres road, a few miles N. of Salonica. (Cf. Route 96, under mile 8.)

Mule-tracks are the normal means of communication, and run (roughly speaking) from every village and monastery to every other in the neighbourhood. Continuous routes are

formed only by linking up local tracks. These tracks are sometimes roughly paved and passable for wheeled traffic of a light description, but at other times are barely passable even for mules.

## ROUTE 142

SALONICA—VASILIKA—GALATISTA—POLYGYROS,

34½ miles

This is the only main road in Chalkidike. It is a chaussée as far as Vasilika, carrying a considerable wheeled traffic; from that point onwards it becomes a track, described as 'a common field path that is often so bad that it can hardly be used with safety by vehicles'.

A detachment of the Greek army in 1912 landed at the head of the Gulf of Cassandra, and went N. through Polygyros and Galatista to help in the attack on Salonica.

miles

- |    |  |
|----|--|
| 0  | <b>Salonica.</b> Road runs S. 2½ miles along shore of Salonica Gulf. Fertile district. Many vineyards, sloping gently from sea.                                  |
| 2  | <b>Kalamaria,</b> S. suburb of Salonica, in fertile plain. Marshy shore. Luxuriant vegetation of willows and marsh-plants. A small lagoon-like bay full of fish. |
|    | <b>Kapujilar</b> (Kapoutzides), 1½ mile SE. of Kalamaria, and reached by an unrepared road from Salonica; a well-to-do village; 200 houses, pop. 1,000.          |
| 6  | <b>Dalian</b> (Basiz), with agricultural college on European lines, unique in Macedonia. 2-3 miles S., salt lakes and works, with small yield.                   |
| 7  | <b>Sedes,</b> a little N. of road. Land good for corn, if cultivated. Elms, planes, cypress.   |
|    | Branch track S. across the <b>Vasilika Deresi</b> to <b>Pournari</b> , 2¼ miles.   |
| 12 | <b>Loutra,</b> 2 hrs. from Salonica. Health resort with sulphur springs. Several inns here.  |

miles

To SE. is the plain of the river Vasilika Deresi, a small stream rapidly swollen in spring and wet weather. Corn-fields extend to slopes of Kaloron Oros. On heights, vineyards and mulberry plantations.

Close N. is pyramid-shaped Kara Tepe (Lanari), alt. 2,037 ft. Dwarf oaks and thistles on slopes. Owing to constant wind, snow seldom rests 24 hours on summit. At SE. foot of mountain, **Turanli Chiftlik** (farm), with better soil. On r., Turkish cemetery. Fruit trees, mulberries. Well cultivated fields and gardens, many vineyards.

14½

**Vasilika**, alt. 262 ft., pop. 2,200 ; this town is in active communication with Salonica. 450 houses, several large inns, 3 churches. It is situated on river Vasilika Deresi, and has a better climate than Kalamaria. Intelligent Greek population, with good reputation as farmers.

Beyond Vasilika the plain narrows into a valley, with bare sunburnt slopes, alternating with meadows, fallow-lands, large corn-fields. Vegetation richer. Paliurus, dwarf oaks ; mica-slate rocks. Road rises, following river Vasilika, here small, with deep-cut tributary streams. Thick bushes on slopes ; oaks, planes, poplars, olives.

21½

**Galatista**, alt. 1,496 ft. ; pop. 2,000 ; 8 hrs. from Salonica. Situated in a semicircular valley closed by wooded heights. Picturesque position, massive mediaeval tower in background. Five churches ; 400 houses. Greek population, occupied in agriculture and cattle-breeding. Charcoal-burning, silk-worms reared. Not much prosperity. Local muleteers or transport agents (*kiraji*) well known.

Galatista, being a convenient day's journey from Salonica, is much used by travellers to and from the capital, and by the mails. Several large inns with

miles

roomy stables and barns. Important police station. Formerly seat of Turkish Government for *nahié* (sub-district) of Kalamaria under *kaimakam*. Seat of Greek bishop. Fine view from height above Galatista.

- 23 From Galatista route runs E., steep and rocky, winding up NW. slope of **Vavdos Dag** (alt. 2,444 ft.). Valleys sparsely covered with shrubs. An hour's climb to top of pass. Alt. 2,329 ft. On r. deep valley in which river Vasilika rises, with planes, oaks, beeches. Megali Vilya mountain beyond, alt. 3,419 ft.

From top of pass the road falls gently to the Resetnik valley. Deep stream channels both sides. Sparse vegetation. Mica. Valley of river Lunjik-Lakos, running due S. straight to Gulf of Cassandra. Road sinks to alt. 1,279 ft., but mounts again to—

- 26 **Resetnikia**, alt. 1,417 ft., on E. side of valley. This is an insignificant place of 80 houses and 400 inhabitants; 2 churches. Cattle-rearing on considerable scale. Place liable to be attacked by *klephtes* (robbers).

- 29½ **Kayajik**, alt. 1,738 ft., with 35 houses, 180 inhabitants, good spring water, oak woods.

Road descends through woods into Gavrolakos valley, several deep gorges, then climbs over meadowlands to alt. 2,296 ft.

3 miles SE. is Mt. Alvoutia, alt. 2,920 ft., in dense forest.

- 34½ **Polygyros**, alt. 1,754 ft.; pop. 2,000; 15 hrs. from Salonica. Owing to its central position, this is the capital of Chalkidike. 400 houses, inhabitants all Greek. Several well-attended Greek schools, one church (St. Nicholas). Seat of Greek Bishop of Cassandra, and formerly of *kaimakam* of district. Telegraphic communication with Karyaes, capital of Athos, and Salonica *via* Galatista. Regular postal service. Small garrison and body of police, who are often called out against local brigands. Population

miles

quiet. Cattle-rearing, agriculture, much rearing of silk-worms (in large mulberry plantations). Water-mills and wind-mills for grinding corn for town and neighbourhood. Several oil-mills. Bee-keeping increasing. Silk and wool fabrics woven here.

## ROUTE 143

POLYGYROS—VRASTA—RAVENIKIA—LARIKOVI—  
MT. CHOLOMONDA—RESETNIKIA, 43½ miles

This route is made by mule-tracks throughout, and much of it is in mountainous country.

miles

- 0      **Polygyros**, alt. 1,754 ft. The track climbs hill-side E. through woods to S. summit of Mt. **Alvoutia** at 2,920 ft. in ½ hr. Then descends to alt. 984 ft. and crosses undulating grassland to—
- 6      **Vrasta**, alt. 1,446 ft., pop. 800 ; lying in a level valley. 160 houses.

From Vrasta a track leads N. over Mt. Cholomonda to Resetnikia and Nejevler, and the peak can be ascended from this side.

Beyond Vrasta, quartz veins and mica. Scantier vegetation. Abundant springs. Steppe-like saddle before Keratia. Olives, chestnuts, beech and oak-woods on steep descent to stream at—

- 10½      **Keratia**, alt. 492 ft., 30 houses ; 2 hrs. from Vrasta. From here the track follows the stream Smiksis, bordered with beech, ash, oak, walnut, chestnut. More olives, wooded heights both sides. Mica, diorite, and talc in banks of stream. Level winding shady track to—



miles

15

**Hagios Prodromos** monastery, alt. 456 ft. ;  $3\frac{1}{2}$  hrs. from Vrasta. Hence N. along l. bank of Smiksis by less wooded track to—

17 $\frac{1}{2}$ 

**Ravenikia**, alt. 885 ft., pop. 800;  $4\frac{1}{2}$  hrs. from Vrasta, in beautiful situation. 160 houses, 2 roomy inns, church, in pleasant upland, enclosed by low hills, and watered by sluggish stream. Mulberries, cherries, nuts, figs, quinces, pomegranates plentiful. Town formerly populous, being S. gate of district rich in ore, extending N. to Gulf of Orfano. Sheep, goats, pigs. Bee-keeping. Small mills on stream.

Track ascends NW. from Ravenikia through chestnut wood—big trees, thick-growing with spreading drooping branches. Bad descent through dense wood and shrubs to—

22 $\frac{1}{2}$ 

**Paleochori** village and stream, alt. 984 ft., pop. 600, 120 houses. Many gardens and vineyards, dilapidated mills. Church. An hour farther to—

26 $\frac{1}{2}$ 

**Larikovi**, alt. 3,000 ft., pop. 1,600, 350 families. Greenstone and hornblende in river banks. Several tracks approach over a considerable depression and afford a view of the most beautiful spot in the peninsula, except Athos. Larikovi lies in a valley surrounded by undulating hills. Many springs feeding the Larigovo Deresi, which runs NW. into Lake Beshik. Meadow land. 280 houses surrounded with trees. Fenced farm-yards with stalls and barns. 10 roomy inns. Solid buildings, whitewashed, slate-roofed. Church with slender bell tower. Seat of Bishop of Erisos and Hagion Oros. Market for goods from Salonica, as well as corn, wine, honey, wax. Many cattle kept. Women weave cloth, rough carpets, &c., on primitive frames. Men make bare living as *kirajis* (muleteers). Regular pack traffic with Salonica, Seres, Kavalla and all parts of Chalkidike.

Track into Cholomonda Mountains, SW. of Lari-

miles

kovi, steep and obstructed with branches and rocks. At top dense beech woods with some clearings for cattle. Springs and small streams. Fresh ascent.

29 First summit, alt. 3,420 ft., whence view N. to Beshik Lake, 10 miles. Hence steeper and narrower track through dense wood (in parts almost impenetrable undergrowth, elsewhere juniper and ferns) with wild boars and deer, to the—

30½ **Cholomonda** pass, alt. 3,360 ft. (3 hrs. from Larikovi). The summit, alt. 3,675 ft., one of the three highest peaks in Chalkidike, is 1 mile N.

From the pass a track diverges S. to **Vrasta** and **Polygyros**, and 1¼ mile farther on another diverges W. to **Resetnikia** (4 hrs.). Descent from the Cholomonda less steep than ascent, but broken up and blocked by branches and rocks. Instead of beeches, oaks; below alt. 1,900 ft., beech, ash, chestnut; lower, planes, and clearings with rich vegetation. Mountain streams carry down trees, rocks, and débris.

41½ **Nejevler**, 5 hours from Cholomonda, alt. 1,771 ft., pop. 300, 60 houses, lies in a valley. Slopes of Mt. Vatonía rich in dwarf oaks and paliurus. Few oaks and beeches. Same rock formation as at E. foot of Cholomonda (Larikovi). Slate and pyrites. Large slate quarries near Nejevler. Tiles, jugs, basins manufactured and exported throughout Chalkidike and to Salonica. Hence SSE. to—

43½ **Resetnikia**. (See Route 142 at mile 26, and Route 144.)

## ROUTE 144

RESETNIKIA—KALORON OROS—APONOMI—

MYRIOFYTON—PINAKIA, 49 miles

This route follows the greater part of the SW. coast of the peninsula. Mule-tracks only throughout.

miles

- 0 From **Resetnikia** (see Routes 142 and 143), alt. 1,417 ft., a track crosses the Resetnik Dere (many water-mills), and climbs gradually SW. to summit of Vavdos Dag (alt. 2,444 ft.) in  $1\frac{1}{2}$  hrs. Oak trees.  $\frac{1}{2}$  hr. farther—
- 3 **Vavdos** village, pop. 1,000, 200 houses; in meadowland, with view over Vasilika valley to Salonica. Cattle-breeding and bee-keeping. Trade with Salonica.
- Track W. along ridge of Oros Megali Vilya barely practicable: guides needed. Luxuriant shrub vegetation, beeches, oaks.
- 5 Summit, 3,419 ft.,  $1\frac{1}{2}$  hrs. from Vavdos. Wide view. Hence gentle descent and ascent again through woods. Crystalline schist and gneiss. One hour more to first summit of Sivri Tepe (2,099 ft.), second summit 1 mile farther (2,263 ft.). Beyond summit vegetation changes: low bushes, grass, herbs. In  $2\frac{1}{2}$  hrs. more (more than 5 from Vavdos)—
- 13 **Doganji**, alt. 1,771 ft., 30 houses, chiefly of Yuruks. View of SW. coast from Aponomi to Cassandra.
- Hence W. still along ridge through drearier country with views N. and S. in  $2\frac{1}{2}$  hrs. to—
- 18 **Adali**, alt. 1,181 ft., 30 poor houses of Yuruks.
- 20 **Mesimeri**, pop. 450 (Greek, Turk, and Yuruk). Agriculture. Desolate hills contrast with rich vegetation of valley.

An alternative track to Pinakia *via* Portaria and Myriofyton leaves Mesimeri in a SE. direction, and as far as Myriofyton is, roughly speaking, parallel to the coast route at an average distance of 3 miles from it. Cross tracks connect the two. The track is probably usable by pack animals. It passes over a series of ridges and valleys—the tops of the ridges being on an average 500 ft. above sea-level, and the bottoms of the valleys about 100 ft. above sea-level.

miles

- |                  |  |
|------------------|--|
| 0                | <b>Mesimeri</b> , alt. about 500 ft.   |
| 3 $\frac{1}{4}$  | <b>Atmajali</b> , alt. about 100 ft., in a valley.   |
| 5 $\frac{1}{2}$  | <b>Karayusuf</b> , alt. about 130 ft., in a valley.  |
| 7 $\frac{1}{2}$  | <b>Chinganeli</b> , alt. about 750 ft.   |
| 9 $\frac{1}{4}$  | <b>Chobanli</b> , alt. about 100 ft., in a stream valley.  |
| 10 $\frac{1}{2}$ | <b>Kardia</b> , alt. about 260 ft., in most fertile part of the coast-plain. Pop. 250 (Greek); 50 houses. (See under mile 35 $\frac{1}{2}$ on main track below.)                                     |
| 11 $\frac{1}{4}$ | <b>Tumba</b> , alt. about 160 ft. Pop. 100.  |
| 15 $\frac{3}{4}$ | <b>Sufilar</b> , alt. 278 ft., pop. 300, with church, 80 houses, and some ruins; thence 1 $\frac{1}{2}$ hours over undulating ground and several streams (bridge over Rumsarat Dere), and a spur to— |
| 20               | <b>Portaria</b> , alt. 164 ft., pop. 350, with church, 80 good houses and large farm-buildings; in a stream valley.  |
|                  | Hence by track E. over undulating ground and ploughed land.  |
| 24 $\frac{1}{4}$ | <b>Myriofyton</b> , alt. 131 ft., pop. 250, on the r. bank of the Lunjik-Lakos. Ruins of <i>Olynthus</i> on opposite side of river: mounds, masonry, and fragments of pottery.                       |

The mouth of the Lunjik-Lakos, which was 2 miles SW. of the present mouth, is now

miles

miles

marsh land, with remains of the ancient harbour. Hill pastures begin 4 miles inland.

Track turns S. for  $\frac{3}{4}$  hour to—

26 $\frac{1}{2}$ 

**Hagia Mamas**, alt. 95 ft., situated astride the old bed of the Lunjik-Lakos. Shore of gulf on left fringed by marsh, with outlet at S. end. 1 hour more S. by W. to—

31 $\frac{1}{2}$ 

**Pinakia** (ruins of **Potidaea**). Isthmus narrows to nearly  $\frac{3}{4}$  mile. Principal remains, two ruined walls with towers across the isthmus from E. to W. about 1,000 yards apart.

23

**Aponomi**, alt. 131 ft., 1 $\frac{1}{4}$  hr. farther. Pop. 2,000 ; 500 houses. Much used as stopping-place. Coast, which falls steeply to sea at **Cape Karaburun** (9 miles NW. by mule-track), with marshy shore, becomes more level and dune-like. Sand deposits inland, then limestone of Kaloron Oros. Below the sand, loam and fuller's earth.

1 hr. NE. from Aponomi, **Sunar**, alt. 295 ft., 15 houses. Turks and Greeks living peaceably together. 2 hrs. NE. **Zumbat**, with church, inn, and 150 Greek houses in wide valley. Hence W.  $\frac{1}{4}$  hour to **Uzunali**. 20 Greek and Turkish houses, with some Yuruks and Gipsies, as also in **Hajibali** (30 houses) and **Tumba** (40 houses).

2 $\frac{1}{2}$  hours back to Aponomi *via* **Mandra**, **Bara**, and **Tuzla**, all small villages, the last with large salt-works, 3 $\frac{1}{2}$  miles NW. of Aponomi. Dreary country throughout, excepting some fertile valleys.

From Aponomi track runs SE. through—

24 $\frac{1}{2}$ 

**Krichana** (monastic property, common hereabouts worked by tenants or monks as farms) to sandy coast.



miles

30	<b>Tzali</b> , $2\frac{1}{4}$ hours from Aponomi.
35 $\frac{1}{2}$	<b>Karvouna</b> , $1\frac{3}{4}$ hours from Tsali. Hence track NE. ( $2\frac{1}{4}$ miles, 1 hr.) to <b>Kardia</b> . See mile 10 $\frac{1}{2}$ , alternative track above.
38	<b>Bulgar</b> .
42 $\frac{1}{2}$	<b>Russiko</b> .
45 $\frac{1}{2}$	Branch track r. to anchorage of <b>Xylopyrgos</b> , $1\frac{1}{4}$ miles S.
50 $\frac{1}{2}$	<b>Pinakia</b> (Potidaea).

## ROUTE 145

CIRCUIT OF CASSANDRA,  $64\frac{1}{2}$  miles

**Cassandra** contains 15 villages and 20 *metochia*, with about 5,550 inhabitants, mostly fairly prosperous, since Cassandra, if poorer in harbours than Longos, is economically the most important of the 3 promontories of Chalkidike. The lower part of the hills is fruitful, and about half of it is cultivated. Field produce, fruit, and excellent wine are produced, above the needs of the neighbourhood. A good market is provided in Salonica. The wood will soon be all exhausted. It is also said that, as regards ore, there are only a few places where chrome can still be got. The population is Greek. The men are muscular and strong, but have little energy.

miles

0	<b>Pinakia</b> . The track crosses gentle undulations covered with dense shrubs and small groups of trees. In 2 hrs., Hagios Dionisios, standing high up. The track follows the E. coast to—
6 $\frac{1}{2}$	<b>Hagios Pavlos</b> , $3\frac{1}{2}$ hrs. from Pinakia.
7 $\frac{1}{2}$	<b>Athitos</b> , 120 houses, church, in fertile, well-cultivated land, with steep descent to shore.

miles

Hence track follows coast-line past—

9 $\frac{1}{4}$  **Neromylo.**

9 $\frac{3}{4}$  **Rossikon metochion** (vineyards and orchards).

12 **Pazarkia**, 2 hrs. from Athitos, pop. 200, standing back from sea, on mountain meadowland, falling steeply to W.

16 $\frac{1}{2}$  **Polychrono** (50 houses, church) 1 $\frac{1}{4}$  hr. from Pazarkia. Coast more level past Hanyoti (20 houses).

22 **Kapsochora** (3 $\frac{1}{4}$  hrs. from Pazarkia). Pop. 400, with charcoal export and bee-keeping.

$\frac{3}{4}$  hr. farther, Iviron Monastery, beautifully situated above Cape Karavi, whence track climbs through thick woods over point of Cassandra, which falls steeply into sea at Capes Nikolaos and Paliouri.

27 **Paliouri**, alt. 656 ft. Pop. 300. Fine view.

Hence 1 $\frac{1}{2}$  hr. NW. by steep track over summit (alt. 1,066 ft.).

31 **Hagia Paraskevi**, alt. 688 ft., pop. 350, a beautiful village in meadowland on W. side of ridge.

Back S. in 1 $\frac{1}{2}$  hr. to coast at **Cape Kanastron** (also reached by direct track from Paliouri). Hence flat coast, sandy, with limestone strata, track broken by dry water-courses. Then more undulating, and near Cape Cassandra steep and broken.

40 **Anastasia** (Alonia). 2 $\frac{1}{4}$  hrs. from Cape Kanastron. 2 hrs. more to—

45 $\frac{1}{2}$  **Nea Kalandra**, alt. 360 ft., pop. 900 (Greek). Bee-keeping, silkworms, olive, mulberry, and fig gardens, pumpkins, but not lemons. Trade with Salonica.

46 Track descends to—

48 $\frac{1}{2}$  **Phourka**, 1 hr. from Nea Kalandra, pop. 250, with 2 fine churches, in valley.

(1 hr. E. higher up same valley, Kasandrino, pop. 150.)

From Phourka track N. uphill in 1 $\frac{1}{4}$  hr. over arable shrubland.

miles

52

**Valta**, alt. 754 ft., pop. over 800, the chief town of Cassandra; in a cool, healthy position, with continual breezes; 2 churches, 2 roomy inns, well-kept fields and gardens with many trees.

Hence NW., rejoining coast-track in  $1\frac{1}{2}$  hr. at Xenophon Monastery. Shore cut up by streams. Hence  $3\frac{1}{2}$  hrs. back to—

64½

**Pinakia.**

Whole circuit takes 3 days.

## ROUTE 146

FROM ISTHMUS OF CASSANDRA TO ISTHMUS OF  
ATHOS,  $37\frac{3}{4}$  miles

miles

0

**Myriofyton** (see Route 144, branch under mile 20, at mile 24½). Track runs SSE. *via* **Molivoporgos**, pop. 150 (3 miles), close to sandy N. shore of Gulf of Cassandra. Small settlements (*kalyvia*) of monks cultivating gardens and fields, keeping bees and rearing silk-worms. Conspicuous windmill. Foothills E. and NE. of mica, gneiss, quartz, and some shale.

In 2–3 hrs. over spur of Trikorfa NE. (strawberry plants, oaks, pistachio, olives) and past ruins of Sermyle (mounds and rubbish heaps) to plain and village of—

10

**Ormilia**, alt. 262 ft., pop. 1,100, beautifully situated. The Miliada (Smiksis) and Kударos Lakos valleys are rocky, with mica, schist, diorite, and marble. Vegetation: olives and oaks. In plain, fields, vineyards, fruit-gardens. Silk-worm industry. 3 miles inland from the mouth of the **Kударos Lakos** are works in connexion with a chrome mine at Mandra.

From Ormilia, track runs 3 hrs. SE. over low hills

miles

at first arid, then with more undergrowth and trees, rising N. to pine forests of Mt. Ormena, to—

18 $\frac{3}{4}$  **Nikitas**, alt. 131 ft., pop. 850, in rocky depression on Longos isthmus, between hills backed by evergreen forest, with church and 170 houses. Sea-folk, with sailing-boats. Windmills.

Nikitas is starting-point for circuit of Longos (see Route 147).

Steep track NE. to—

20 $\frac{3}{4}$  **Hagios Nikolaos**, alt. 951 ft.; end of circuit of Longos (see Route 147).

From Hagios Nikolaos a dull track N. along flat, sandy coast between bay and steep hills. Luxurious vegetation. Mt. Ormena well wooded throughout. Few dwellings.

29 $\frac{3}{4}$  **Pergadikia**, 10 cottages and *metochion* on edge of forest land, with small anchorage.

37 $\frac{3}{4}$  **Erisos** (Jerissos), approached through well-cultivated fields (corn, maize, sesame, cotton), vineyards and orchards. Pop. 1,500, 300 houses, church, in situation sloping gently to flat shore,  $\frac{1}{4}$  hr. distant. Owing to situation on isthmus and roads leading to Athos from NW., W., and SW., the place is of growing importance. Bay sheltered from S. and E. Much used by Athos monks and pilgrim ships as harbour of refuge. Considerable sailing-ship trade with mainland and islands. Four superior inns, where travellers spend night on way to Athos.

## ROUTE 147

## CIRCUIT OF LONGOS, 64 miles

The configuration of **Longos** is quite different from that of Cassandra. The peninsula is composed of a much higher mountain range, which throws out numerous comparatively level spurs, whose extremities fall steeply into the sea in cliffs of bare rock. The whole mass is a single block of gneiss, comprising grey mica and quartz. The valleys between the spurs are short and precipitous, with rough floors. There is so little land capable of cultivation that every inch is made use of. The coast formation, particularly in the S. and NE., shows more variety than Cassandra, the coast-line being broken up by creeks, promontories, and small uninhabited islands.

Under these conditions, the facilities for travelling are very poor. The actual coast-line is in many cases impracticable. The coast-track climbs and descends over smooth, slippery rocks, often at a great height above the sea, and great care is needed in using it. The forest vegetation consists of firs, planes, beeches, arbutus, or ilex. There is plenty of game, including deer and wild boars. As compared with the Athos peninsula, the configuration of Longos is rougher, less rounded and refined.

The number of inhabitants amounts to 4,500, including many monks. There are not many monasteries on the peninsula, but 25 *metochia*, viz. estates belonging to and cultivated (directly or indirectly) by monasteries, most of which are in Athos. Apart from Nikitas and Hagios Nikolaos on the neck of the isthmus, there are only five villages on Longos. The people maintain themselves partly by agriculture, which is toilsome and unremunerative, and partly by hunting and fishing. By these means they barely supply their immediate needs, and cereals have to be imported.



They also practise charcoal-burning, living in small hamlets in the forests for this purpose all the year round.

The route described is by mule-tracks throughout.

miles

0      **Nikitas**, alt. 131 ft. (see Route 146 at mile 18 $\frac{3}{4}$ ). Track follows coast closely SE. to the *metochion* Kiriaki, just beyond which path crosses mountain crest to NE. coast, passing poor hamlet of Parthenona. Small coast-plain cultivated by peasants of Tripotamo.

13      **Tripotamo**. 10 houses, with boat-anchorage Balam-bani, whence charcoal is shipped. Slippery track ascends SE., E., and SE. to alt. 688 ft., and drops to Zabko (Asapichori) Metochion (6 miles) and Toronis Bay, with insignificant ruins of Torone. Hence difficult coast-track by Kiliye (4 miles more).

25      **Koufo**, pop. 60. Track continues round S. promontories of peninsula to Sikia. Several *metochia* are passed; they are used as landmarks by sailors.

There is a shorter route leaving the above route at Asapichori first E., then N. over crest (alt. 951 ft.) in 5 $\frac{1}{2}$  hrs. from Tripotamo (last part very difficult for horses) to—

37      **Sikia**, alt. 524 ft., pop. 1,600, the largest village in Longos, in small well-watered and cultivated depression above Sikia Bay.

From Sikia track crosses small plain and rounds Cape Sikia, with extensive ruins of Sarti. Richa Bay, with dangerous cliffs; small well-cultivated coast-plain on each side of Cape Richa. On crest, monastery of Xiropotamos (7 $\frac{1}{2}$  miles). From Cape Souli onwards, rugged and barren coast to—

49      **Kalamitzi**, alt. 262 ft. (4 hrs.), small village on steep side of small valley.

Three hours NW., **Cape Vourvouri**, with cliffs; very suitable for fortification, and commanding good roomy

miles

anchorage of **Dimitrios** (Vourvouri) Bay, still much used. 10 huts and mill.

64

Three hours from Vourvouri by track high above sea through finest scenery in Longos to small valley of—

**Hagios Nikolaos**, alt. 951 ft., pop. 800, 160 houses, a rather important place, with church, school, three large inns, several shops, windmills; formerly seat of Turkish customs and coastguard. Agriculture, fishing, bee-keeping, silkworm rearing. E. of village, rocky promontory with ruined castle, formerly joined to mainland by drawbridge.

## ROUTE 148

### CIRCUIT OF ATHOS, 74 miles

**Athos** is a mountainous peninsula measuring 34 miles along its axis and varying from  $2\frac{1}{2}$  to 5 miles in breadth. The isthmus uniting it to the mainland is only  $1\frac{1}{2}$  mile across, and its highest point is 46 ft. above sea-level. The peninsula is entirely occupied by a mountain-ridge which rises in  $5\frac{1}{2}$  miles from the isthmus to a height of 1,607 ft.; it is lowest at the narrowest part of the peninsula, midway between the isthmus and its southern extremity, Cape Santo; from this lowest point it rises and maintains an average height of 2,000 ft. till,  $4\frac{1}{2}$  miles from Cape Santo, it begins to rise abruptly towards the marble summit of Mount Athos (6,348 ft.).

There are (with one exception) no roads other than mule-tracks, but these are paved with large stones and kept in good repair by the monks. Mules are the only means of transport. There is one cart-road, running from Zographou monastery down to the sea.

The only harbours are (1) **Vatopedion** (Batopaidion) at the narrowest part of the peninsula,  $5\frac{1}{2}$  miles NW. of Karyaes and facing NE.; (2) **Dafni**, 3 miles SW. of Karyaes and facing W. There are inns at both these places. Dafni is more conveni-

ently situated for **Karyaes**, though the road between Karyaes and Dafni crosses the central mountain-range at a height of nearly 1,500 ft. above the sea. Dafni only faces the gulf of Athos, whereas Vatopedion faces the open sea and is fully exposed to north-easterly gales. Small boats can land at most of the monasteries.

miles

0

**Erisos.** The track proceeds  $2\frac{3}{4}$  miles SE. to the remains of Xerxes' Canal (made in connexion with his invasion of Greece 480 B.C.), past ruins of the old town of Cranopolis (alt. 557 ft.) commanding the isthmus. The lowest part of the isthmus is only 45 ft. high, and the width of the isthmus at that place is 2,400 yds. Canal marked by damp belt of grass and bushes, with pools. About 2,680 yds. from sea to sea. From canal, track ( $5\frac{1}{2}$  miles) SE. along Problaka Bay, rising inland at Chormitza, monastery and a few houses. Hence a steep track  $1\frac{1}{4}$  mile NE. up Vilya hill, summit 1,608 ft.

Route continues SSE. down to the coast again.

$9\frac{1}{2}$

**Kamina.**

11

**Gromoshkin**, monastery and houses. Road leaves the coast, crossing heads of ravines to Dionisiou monastery ( $3\frac{1}{2}$  miles), whence there are tracks over mountains to N. coast at Kalindar ( $3\frac{1}{2}$  miles) and to Vatopedion Bay (7 miles). Half-way to the latter, the track diverges again SE. past Zographou monastery to the rocky W. coast, which it follows closely past five other monasteries.

23

**Dafni Bay**, chief landing-place for visitors to Athos, with monastery, inn, and houses.

Good direct track over mountains to **Karyaes**, 3 miles (see mile 48, below).

From Dafni route leads past Cape Kastana and monasteries, and behind a small marshy plain.

miles

- 29      **Pavlos** monastery. Route turns W., beginning circuit of the peak of Athos, and leading at first near the shore.
- 31      **Hagia Anna** monastery. Route strikes E. across mountain spurs.
- 34      Cape **Hagios Georgios** (Santo). Route turns NE.
- 37½      Cape **Lavra**. Route turns NW.
- 42      Track divides; the coast track is the better, though rocky near **Karyaes**.
- 48      **Karyaes** (Greek for 'hazels'), pop. 1,500. Situated on l. (NW.) bank of a steep valley, surrounded by orchards and olive groves. A single street of shops, mostly kept by monks. There is a school for young monks, and a bad inn.  
Hence N. by W. along E. slopes of hills (or by a longer track winding round the coast) down to—
- 53      **Vatopedion Bay**, harbour, monastery. Thence over spurs of the mountain to—
- 58½      **Kalindar**, and along N. coast (almost entirely uninhabited) to the **Plati** promontory, which is crossed at its base by a steep path coming down to—
- 67      **Kimirkalba**. Thence back to isthmus at—
- 70      **Kreman**, whence by N. end of canal back to—
- 74      **Erisos**.

## ROUTE 149

ERISOS—IZVORON—STAVROS—VRASTA, 27½ miles

This route is the circuit of the E. and N. boundaries of Chalkidike from the Athos Isthmus up the E. coast to the outlet of Beshik Lake. Mule-tracks throughout.

miles

- 0      **Erisos** (see Routes 146 and 148). Track goes NW. for half an hour through carefully cultivated fields, then bare, uninhabited country. Beech and oak on slopes of Mt. Kakavos. Gneiss, marble, red granite.

miles

- 6½ **Izbornou**, 1 mile E., with fields and vineyards, and mills turned by Viavitzza river.
- Track follows stream, red with minerals, between grass slopes E. and wooded heights W., with schist and other signs of mining district.
- 11 **Izvoron**, alt. 1,492 ft., on plateau, with meadows and bushes. Mining population of 600. Shallow workings under ground everywhere. Pit-mouths, slag-heaps, ruined cottages and furnaces. Light railway to smelting-furnaces and landing-place at **Stratoniki**, 3½ miles.
- Thence N. over wooded hills in 1¾ hr. to—
- 15 **Lipsasa**, alt. 203 ft., pop. 30, in wide valley-mouth with deserted pits and refuse heaps. Small bay and anchorage. Coastland well cultivated; rice, maize, corn, abundant. Vineyards on hills.
- 23 **Stavros**, pop. 200. 2½ hrs. farther along coast on hill between two torrents. Anchorage at **Skala Stavros**, 1½ mile NE., with few huts.
- 25½ Cross the **Rendina Boghazi** by a bridge.
- 26½ Track crosses the **Salonica-Pazarkia-Chai Aghizi** routes (see Route 118 at mile 42½).
- 27½ **Vrasta**, on plateau rich in corn, maize, vines; sides of Rendina valley rise steeply to 160–230 ft. Pasture for sheep and goats. (For continuation N. to **Nigrita**, &c., see Route 157.)



## ADDITIONAL NOTES

### ON THE REGION BETWEEN SALONICA, DOIRAN, AND THE STRUMA, WITH MINOR ROUTES THEREIN

The area dealt with in these notes is defined on the west by the lower Galiko river and a line northward to the pass or nek of Dova Tepe (see Route 95 at mile  $13\frac{1}{4}$ ), on the north by that pass, which is followed by Route 95 and by the Doiran-Seres railway (see Section on *Railways*, Route VII), on the east by the Struma river, and on the south by the depression E. of Salonica, which contains Lakes Langaza and Beshik, and is followed by Route 118. The main road from Salonica to Seres (Route 96) strikes NE. across the centre of this area, and the road or track along the Struma and Lake Tahinos from the Gulf of Rendina north-westward is dealt with in Routes 119 and 97.

The particulars given here are based upon a collation of information recently received with the Austrian Staff and W.O. maps of the region.

The north of the area is occupied by the Krusa Balkan hills, and the south by those of Beshik Dagħ. These rise to heights of 2,000 to 3,000 ft., and the country is generally broken and rough. The hill-tracks have almost invariably rock foundations, and once made suitable for wheeled traffic would be unaffected by wet weather. Gradients are less difficult as a rule on the south-western slopes than those on the north-east. These tracks offer a complete contrast to those in the lowlands—for example, in the Langaza plain, where they have no foundations and become almost quagmires if used in wet weather.

The minor routes through this area are as a whole suited only for pack transport. In the north-west, about the sources of the Galiko, water is usually plentiful, as the Galiko itself and the Bashishti and other tributaries rise in the Krusa

Balkan hills in springs which are said never to run dry. Fuel for immediate requirements is generally available. In the higher tracts, and especially on the north slope of the Krusa Balkans, water for animals is scarce. Villages have drinking-water from wells, and at some this becomes scanty in summer. Supplies, generally speaking, are limited. In the rough hill-country of the Beshik Dagħ, SE. of the Salonica-Seres road, water is usually scarce except at villages, where there are wells and frequently fountains. Water is more plentiful on the southern than on the northern slopes, as in the Krusa Balkans. The Ilje Dere, which flows from Beshik Dere E. into the marshes at the head of Tahinos Lake (see Route 119 at mile 19 $\frac{3}{4}$ ), has a plentiful supply which is said not to fail in summer. Between it and Lake Beshik to the south there is a lake, Lanja, without outlet, the water of which is unfit either for men or for animals. All streams swell very suddenly after heavy rains.

## ROUTE 150

### SALONICA—KUKUSH

#### AND THE DOIRAN—DEMIR HISAR ROUTE

This route would be for the most part fit for wheeled traffic in dry weather, though portions of it would need improving for this purpose. Such portions are indicated, as nearly as can be ascertained, as 'inferior' in the following description. Each occupied village would produce on the average 200 sheep or goats and a few cattle. Some maize and barley are grown.

miles

0 | **Salonica.** Follow Seres road (Route 96) for 11 $\frac{3}{4}$  miles.

11 $\frac{3}{4}$  | Branch WNW. from Seres road. Route leads between the eminence of Daudbaba (1,476 ft.) to SW. and the slopes of the main range to NE.

miles

14 $\frac{3}{4}$ **Dremiglava** (Dirmil).

Branch tracks :—

(i) S. to **Balja**, 2 miles.(ii) NE. to **Gnoyna** (Palehora), 3 miles, and junction with Route 151 (at mile 16 $\frac{1}{2}$ ), 4 miles.17 $\frac{1}{4}$ **Kamara**, alt. 1,066 ft. Descend towards Galiko valley, crossing tributary streams.19 $\frac{1}{4}$ **Rahmanli**, alt. 886 ft.21 $\frac{1}{2}$ Route is joined on l. by track from **Daudli**, 4 miles S.

22

**Ambarköi**,  $\frac{1}{2}$  mile E. of the Galiko river.

27

**Akcheklise**. Branch track NE. to **Sariköi**, 2 $\frac{1}{2}$  miles (see Route 151 at mile 27 $\frac{1}{2}$ ).30 $\frac{1}{2}$ **Kukush**, alt. 925 ft. Several tracks radiate from the village :—

(i) Track from SW., mentioned in Route 77 under mile 13.

(ii) NW. to **Yanesh** (4 miles) and the Salonica-Doiran railway.(iii) NNW. to the Salonica-Doiran railway (8 miles) and **Hirsova** (10 miles ; see Route 77 at mile 37 $\frac{1}{4}$ ).(iv) N. to **Sersemli** (3 $\frac{1}{2}$  miles), whence an inferior track continues to **Inikli** (6 miles) and a cart-track through villages on the foothills of the Krusa Balkans to **Gola** (13 miles) ; thence a horse-track to **Pataros** (15 miles) and **Doiran** station (see Route 95 at mile 2 $\frac{1}{2}$ ).

Route proceeds NNE.

35 $\frac{1}{2}$ **Gramatna**, alt. 695 ft. As far as this point an alternative route from the Salonica-Seres road is provided by Route 151 (which see, under mile 32).

40

**Alexsia**.

43

**Snevche**. Route turns WNW., following inferior tracks.

miles

Branch track for pack animals NE. across the higher parts of the Krusa Balkans to the neighbourhood of **Todarovo** (see Route 95 at mile  $18\frac{1}{4}$ ).

45 $\frac{1}{4}$ 

**Ismaili**, alt. about 1,470 ft. Route bends towards NE.

47 $\frac{3}{4}$ 

**Gülimenli**.

48 $\frac{3}{4}$ 

**Serakli**, alt. about 1,650 ft.

50

From this point tracks branch :—

(i) NW., descending 3 miles to join the Doiran–Demir Hisar route (Route 95, at mile 8), at alt. about 500 ft.

(ii) NE., keeping on higher ground than the preceding branch, and in  $5\frac{1}{2}$  miles joining Route 95 at mile  $17\frac{1}{4}$ , at alt. about 800 ft.

## ROUTE 151

### SALONICA—LOZHISTA

AND THE SERES–DOIRAN ROUTE,  $52\frac{1}{4}$  miles

This route is passable for wheeled traffic throughout in dry weather, and could be made fit for continuous horse transport in 15 days with forced labour. Plenty of road metal is available all along the route. Motor transport, however, could not pass in this region unless wholly new roads were constructed. As to supplies, the same remarks apply as to Route 150.

miles

0

**Salonica**. Follow Seres road (Route 96) for  $13\frac{1}{4}$  miles.

13 $\frac{1}{4}$ 

Branch N. from Seres road. Route passes round eastern slopes of Deve Kran.

16 $\frac{1}{2}$ 

Route is joined on l. by track from **Dremiglava**; 4 miles (see Route 150 at mile  $14\frac{3}{4}$ ).

miles

Route 153 branches r. and N.

18½

**Yeniköi**, W. of track. Route 152 branches r. and N.

20½

**Salihli**. Villages are fairly numerous in this district.

24½

**Yeni Mahalla**, alt. 794 ft.

27½

**Sariköi**, alt. 446 ft. Track enters and proceeds up the upper Galiko valley.

Branch track from **Akcheklise** (2½ miles; see Route 150 at mile 27).

32

**Kürküt** (Kirküt, Korkutovo), alt. 715 ft.

Branch tracks :—

(i) NW. to **Gramatna** (2 miles; see Route 150 at mile 35½).

(ii) ENE. and NE., for pack animals, up the **Bashishli** stream to **Krushova** (4½ miles; alt. 886 ft.), **Müzderek** (7½ miles), **Lelovo** (9½ miles; alt. 1,263 ft.), **Petkovo** (11¼ miles; alt. 1,509 ft.), and thence across crest of the Krusa Balkans to **Lozhista** (see mile 51¾, below), providing a rather shorter but more difficult alternative to the main route.

36

**Serchili**.

38

**Planitsa** (Liblak).

39½

**Rayanovo**.

41¼

**Kosh Todor**.

43¼

**Gone-i-Todor**.

45

**Bashanli**, alt. 1,739 ft., at the head of the Galiko valley. Route turns E.

46¼

**Rumni**, alt. 1,608 ft.

51¾

**Lozhista**.

52¼

Junction with Seres-Doiran road (Route 97 at mile 26½). Alt. about 100 ft.



## ROUTE 152

SALONICA—KOPRIVA BRIDGE, 50½ miles

From Yeniköi this is a hill-track which would require blasting and levelling to render it permanently fit for any wheeled traffic.

miles

- |     |   |
|-----|---|
| 0   | <b>Salonica.</b> For route as far as Yeniköi see Route 151.   |
| 18½ | <b>Yeniköi,</b> W. of track. Route branches r. and N. from Route 151, leading over broken country and crossing several tributaries of the Galiko.                 |
| 21½ | <b>Hajilar.</b>   |
| 25½ | Alt. about 1,220 ft. Descend to and cross the <b>Sirt Dere</b> , tributary of the Galiko. Route then ascends with a wide sweep NW. along slopes above the valley. |
| 28½ | <b>Pirnovali.</b> Route turns in general E. direction.  |
| 34½ | Branch track SSE. to <b>Mirova</b> (see Route 153 under mile 19½).  |
| 36½ | <b>Mozgal</b> , alt. 2,461 ft. Track trends generally NE. Descend to head-stream of the Bashishli, and ascend again.  |
| 39½ | <b>Paprat</b> , alt. 2,064 ft.  |
| 41½ | Alt. 2,644 ft. Broken country across crest of the Krusa Balkans.  |
| 44½ | <b>Hamzali</b> , alt. 1,903 ft.   |
|     | Branch track generally N. and NE. through <b>Ismaili</b> to the Salonica-Doiran road (Route 96 at mile 20¼).  |
| 46  | Route continues generally E.  |
| 46  | Alt. 1,214 ft. Steep descent.   |
| 50  | Junction with Seres-Doiran road (Route 97 at  |

miles

- mile  $16\frac{3}{4}$ ). Track from Mirova, &c. joins here (see Route 153 at mile  $19\frac{1}{2}$ ).
- $50\frac{1}{2}$       **Kopriva** bridge over the **Struma** (see Route 97 under mile 0).

## ROUTE 153

SALONICA—DRAGOS,  $43\frac{1}{2}$  miles

After it leaves Route 151, this, like Route 152, is a hill-track which would require heavy work to make it fit for wheeled traffic.

miles

- 0      **Salonica.** For the first  $16\frac{1}{2}$  miles see Route 151.
- $16\frac{1}{2}$       Route branches r. and N. from Route 151.
- $19\frac{1}{2}$       From this point, just S. of **Stefanamuslim**, a track branches l., and leads *via* Stefanamuslim, **Dundarli** (6 miles), **Mirova** (10 miles), **Dokushli** (12 miles), and **Bali Oglulari** (18 miles) to join Route 152 near **Kopriva** (26 miles). It keeps for the most part roughly midway between Routes 152 and 153, and is connected with both by numerous paths. It is broken and difficult, and would require repairs even for pack transport.
- 21      **Karajaköi**, alt. 853 ft. A good wheel track branches r. and ENE. to Likovan on the Salonica-Seres road (Route 96 at mile 29).
- 30      **Haji Bairamli**, alt. about 2,200 ft.
- 32      **Ravna.** A good wheel track branches r. and SE. to Lahana on the Salonica-Seres road (Route 96 at mile 32).
- Route continues over broken country, mainly descending, in parts steeply.
- 40      **Turitsa.**
- $43\frac{1}{2}$       **Dragos.** (See Route 97 at mile  $12\frac{1}{4}$ .)

## ROUTE 154

LANGAZA-KOMARYAN BRIDGE,  $33\frac{1}{2}$  miles

A track for pack transport only; it would require four to six weeks' work to render it fit for wheeled traffic. From Langaza and various points along the route there are rough tracks connecting with the Salonica-Seres road (Route 96), and with Route 155.

miles

- |                 |  |
|-----------------|--|
| 0               | <b>Langaza</b> (Langada), alt. 361 ft.; $12\frac{1}{2}$ miles from Salonica (see Route 96). Route leads up the E. side of the valley of a northern feeder of Lake Langaza. There is a parallel track on the W. side of the valley, <i>via</i> Sariyar. |
| 14              | <b>Visoka</b> . Route now follows an inferior track, ascending steeper slopes of the main ridge of Beshik Dagh.  |
| 17              | <b>Grimitsi</b> . Route now crosses main ridge.  |
| 18              | Alt. about 2,400 ft.   |
| $19\frac{1}{2}$ | <b>Berovo</b> , alt. 2,264 ft.   |
| $24\frac{1}{2}$ | <b>Aivalik</b> .   |
| $27\frac{1}{4}$ | <b>Bashkōi</b> . Close to this place the Salonica-Seres road may be reached (Route 96 at mile $40\frac{1}{2}$ ).   |
| 29              | <b>Mahmudi</b> . Descend to the plain of the Struma.   |
| $31\frac{1}{2}$ | <b>Mekes</b> . Branch track SE. to <b>Fitoki</b> , $7\frac{1}{2}$ miles (see Route 155 at mile $30\frac{1}{2}$ ). This is a good horse-track over easy country.  |
| $33\frac{1}{2}$ | <b>Komaryan</b> bridge over the Struma (see Route 119 at mile 30).   |

## ROUTE 155

LANGAZA-SUHO-NIGRITA-APIDIA,  $32\frac{1}{4}$  miles

A track for pack transport only ; it would require four to six weeks' work to render it fit for wheeled traffic. A number of rough cross-tracks connect it with Route 154.

miles

- |   |   |
|---|---|
| 0   | <b>Langaza</b> (Langada), alt. 361 ft. ; $12\frac{1}{2}$ miles from Salonica (see Route 96). Route leads SE. for 2 miles ; then ENE. and NE., generally ascending as far as Suho. |
| 2   | Diverge l. and ENE. from Route 156.   |
| 4   | <b>Balartsa.</b>  |
| 11  | <b>Kara Omerli.</b> This village is mentioned as specially subject to malaria.  |
| Branch track generally S. to <b>Klisali</b> , $8\frac{1}{2}$ miles (see Route 156 at mile $9\frac{1}{2}$ ). |   |
| 17  | <b>Suho.</b> Ascend crest of main ridge of Beshik Dagh.   |
| 19  | Summit of route, alt. about 3,000 ft.   |
| 23 $\frac{1}{2}$  | Alt. 2,608 ft. Descend steeply towards plain of Lake Tahinos.   |
| 28 $\frac{1}{2}$  | <b>Nigrita</b> , alt. 282 ft.   |
| 30 $\frac{1}{2}$  | <b>Fitoki</b> , alt. 131 ft. Branch track NW. to <b>Mekes</b> , $7\frac{1}{2}$ miles (see Route 154 at mile $31\frac{1}{2}$ ).  |
| 32 $\frac{1}{4}$  | <b>Apidia</b> (see Route 119 at mile $22\frac{1}{2}$ ).   |

## ROUTE 156

LANGAZA-KLISALI-NIGRITA,  $34\frac{1}{4}$  miles

A track for pack transport only ; it could not be made fit for wheeled traffic.

miles

- |                 |   |
|-----------------|---|
| 0               | <b>Langaza</b> (Langada), alt. 361 ft. ; $12\frac{1}{2}$ miles from Salonica. Track leads SE. and ESE. along north shore of Lake Langaza ; liable to be very muddy in wet weather.                    |
| 2               | Diverge r. and ESE. from Route 155.   |
| 7               | Eastern end of Lake Langaza.  |
| $9\frac{1}{2}$  | <b>Klisali.</b> Branch tracks :—<br>(i) N. to <b>Kara Omerli</b> , $8\frac{1}{2}$ miles (see Route 155 at mile 11).<br>(ii) S. to <b>Langavuk</b> , 4 miles (see Route 118 at mile $17\frac{1}{4}$ ). |
| 11              | Branch track SE. and E. along N. shore of Lake Beshik, parallel to Route 118 on S. shore, and joining it at eastern end of the lake.  |
| 19              | <b>Yaikin</b> (Yanikia). Turn N. up hills.  |
| $23\frac{1}{2}$ | Western shore of Mavrovo Lake.  |
| $24\frac{3}{4}$ | <b>Yeni Mahalla.</b> Ascend to main ridge of Beshik Dag.  |
| $28\frac{1}{4}$ | <b>Yermani</b> pass, alt. about 2,200 ft. Descend and turn ENE. down the Ilije Dere valley.   |
| $32\frac{1}{4}$ | Turn NNE. out of the Ilije Dere valley, joining and following Route 157.  |
| $34\frac{1}{4}$ | <b>Nigrita</b> , alt. 282 ft. (see Route 155 at mile $28\frac{1}{2}$ ).   |



## ROUTE 157

VRASTA-NIGRITA, 21 miles

A track of similar character to Routes 154, 155, requiring heavy labour to fit it for wheeled traffic. It gives access from Routes 118 and 149 to Nigrita and beyond (there are several tracks up from the Rendina valley (Route 118) into that of the Abadeirman Dere).

miles	
0	<b>Vrasta</b> (see Route 149 at mile $27\frac{1}{2}$ ). Cross a hill into the Abadeirman valley, and ascend valley.
$6\frac{3}{4}$	<b>Maslar</b> . Proceed W., NW., and N. along slopes of the main ridge of Beshik Dag.
$12\frac{1}{2}$	<b>Sulovo</b> . Ascend to cross the ridge.
16	Alt. about 1,640 ft. Descend to valley of the Ilije Dere.
19	Cross the <b>Ilije Dere</b> , and join and follow Route 156.
21	<b>Nigrita</b> , alt. 282 ft. (see Route 155 at mile $28\frac{1}{2}$ ).

# RAILWAYS

## SUMMARY

	PAGE
Introduction :—	
(1) Greek Railways . . . . .	417
(2) Serbian Railways (including lines from Salonica). . . . .	419
(3) The Salonica-Dedeagach Railway . . . . .	422
(4) Bulgarian State Railways . . . . .	423
Routes :—	
I. Lamia-Larissa . . . . .	426
II. Larissa-Tempe-Salonica . . . . .	427
III. Volo-Larissa . . . . .	428
IV. Volo-Kalabaka . . . . .	429
V. Salonica-Monastir . . . . .	430
VI. Salonica-Nish <sup>1</sup> . . . . .	433
VII. Salonica-Dedeagach . . . . .	442
VIII. Yeniköi-Ferejik . . . . .	447
IX. Dedeagach-Kuleli Burgas . . . . .	448
X. Nish-Tsaribrod <sup>1</sup> . . . . .	450
XI. Tsaribrod-Sofia <sup>1</sup> -Adrianople-Uzun Köprü . . . . .	450
XII. Gyueshevo-Sofia . . . . .	455

### (1) GREEK RAILWAYS

The Greek railway system (apart from the Greek sections of the lines from Salonica into Serbia and Bulgaria) was entirely unconnected with the continental system until the Larissa-Tempe line was extended northward to join the Salonica-Monastir line (see Route II). This line was reported as

<sup>1</sup> Though outside the strict limits of this volume, the lines from Usküb to Nish, and Nish to Tsaribrod and Sofia, have been included for convenience.

completed and inaugurated in May 1916, and it was intended to send the first through train from Athens to Salonica on June 14.

The two Greek railway companies with which we are here concerned are : (1) the Hellenic (Larissa) Railway Company, with head-quarters at Athens, and (2) the Thessalian Railway Company, with head-quarters at Volo. The Greek railways were all formerly in the hands of companies, the State taking a share of the receipts. The Athens-Larissa line of the Hellenic company, however, is being taken over by the Government, and the extension of this line to Plati (for Salonica) has been built to the order of the Government, and may therefore be regarded as a State line.

The Hellenic (Larissa) Railway runs from the Piræus *via* Athens, Tanagra (with short branch to Chalkis), Livadia, Lianokladi (with short branch to Lamia and Styli), and Larissa to the Vale of Tempe and Plati (for routes from Larissa see Routes I, II). The total length of the line is 314 miles. Bridges and viaducts are exceptionally numerous and admirably constructed. There are 58 tunnels on the system with a total length of 11,600 yds. ; the longest tunnel is that of Oëta, with a length of 2,300 yds., near the viaduct of Bralo. There are three other tunnels each 580 yds. in length. The maximum gradient is a little over 1 in 50. The gauge is normal, i. e. 1·435 metres (4 ft. 8½ inches), and the line is single throughout.

The rolling-stock was reported at the end of 1913 to consist of (1) 30 locomotives (to which 20 American locomotives were added later, but were found too heavy for the track) ; (2) 60 passenger coaches, including 1 royal coach and 1 coach attached thereto ; 5 1st class coaches, 5 2nd class, 10 composite 1st and 2nd class, 3 composite 1st, 2nd and 3rd class, 24 3rd class bogie coaches, 9 3rd class without bogies, 2 service coaches ; (3) 441 goods and other wagons of various types.

During the war of 1912, this line carried 24 trains daily (1 train per hour).

The Thessalian Railway Company's line runs from Volo to Velestino, whence one branch runs to Larissa and another *via* Trikkala to Kalabaka (see Routes III, IV). The total length of the line is 126½ miles. It is a single line throughout, and of metre gauge.

The rolling-stock includes 14 locomotives (6-coupled, with tenders); 1 royal saloon, 2 saloon coaches, 33 closed and 8 open 3rd class coaches; 3 baggage coaches with 2nd class compartments; 8 baggage coaches; 328 goods and other wagons of various types.

Very full particulars of the portion of the Hellenic Company's lines dealt with in this volume, and of the Thessalian Company's lines, will be found in *Notice sur la Macédoine Méridionale et la Thessalie*, 1915, and *Supplément* to the same, 1916, issued by the Ministère de la Guerre, Commission de Géographie du Service Géographique de l'Armée, Paris.

A remark which applies to all Greek railways is that there are no refreshment rooms, and only very indifferent buffets.

## (2) SERBIAN RAILWAYS, INCLUDING LINES FROM SALONICA

The main artery of the whole Serbian system of communications, both internal and external, is the railway from Vienna through Belgrade and Nish to Salonica. The section from Salonica to Nish is dealt with in this volume (Route VI). From this the main line to Sofia, Adrianople, and Constantinople branches off at Nish (see Routes X, XI). Another important line is that from Salonica to Monastir (Route V), which, however, runs almost wholly through Greek territory.

The total length of the line from Salonica to Nish is 283 miles, of which 50 miles are in Greek territory. It is a normal gauge, 1.435 metres (4 ft. 8½ in.), single line without

too difficult gradients or curves and with a reasonable supply of sidings. The line is fairly well made, and the rivers are crossed by good iron girder bridges supported by stone pillars. The sleepers are cast iron or steel. The rails, which are about  $25\frac{1}{2}$  ft. long and weigh approximately 65 lb. per yard, were imported from Creusot in France and from Dowlais. The ballast is generally of broken trachyte or limestone, size  $1\frac{1}{2}$  in. In some cases river gravel is used, but this is being gradually replaced by ordinary ballast. The locomotives use partly wood (plentiful in Macedonia) and partly Cardiff coal. The minimum radius of curve is 837 ft. The gradients average 1 in 160 and only exceed 1 in 100 in three or four places, the steepest being 1 in 66 near Kumanovo. Stations or halts with sidings number on an average one to every 7 miles. Sixteen of the Serbian stations have platforms between 130 and 160 yards in length and six others between 90 and 100. Trains can pass each other at every station. The station buildings are of two-storied masonry. The lower part is used as offices, the upper part as quarters for the station-master. Each station has a telegraph office.

The portion of the line in Greek territory is under the administration of the Greek Government and the rest forms part of the Serbian State Railways.

The total rise from Salonica to Üsküb is 951 ft. in 152 miles. From Üsküb to the watershed near Preshovo (37 miles) there is a further rise of 558 ft., or a total of 1,509 ft. in 189 miles.

From Preshovo the line falls 771 ft. in 65 miles to Leskovac, and another 420 ft. in the next 124 miles to Velika Plana. It then rises again 502 ft. in 35 miles to Ralja and drops 630 ft. in 23 miles to Belgrade.

*Rolling-stock.*—The Greek rolling-stock on that part of the Salonica–Nish line which belongs to the Compagnie des Chemins de Fer Orientaux is approximately (1915) 25 locomotives, 75 coaches, 12 vans, 650 closed and open trucks. Belonging to the Salonica–Monastir and Salonica–Constantinople railway companies there are, in addition, 29 locomotives, 75 coaches, 25 vans, 640 trucks (exclusive of 160



Bulgarian trucks taken in the recent war). The Serbian rolling-stock on the Gevgeli-Belgrade line consists of 81 locomotives, 180 coaches, 969 coal trucks, 1,623 closed trucks, 328 open trucks, 53 post and luggage vans. The locomotives are of the 2-4-2 type, with 6-wheeled tenders, of a maximum weight (empty, without tender) of 42·7 English tons. The 4-wheeled passenger coaches and goods trucks are mostly of Belgian make. According to a report of 1884 the goods trucks had a capacity of 10 tons each, and the 1st, 2nd, and 3rd class coaches carried 24, 40, and 50 passengers respectively. Forty trucks, or their equivalent in coaches, would as a rule make up a troop train.

*Speed.*—The maximum speed on flat straight sections is 47 miles per hour. The average speed on the longest runs is 31 miles per hour. Owing to the sharp curves at the switches, the maximum speed through stations is not more than 25 miles per hour. For passenger trains the average speed including halts is under 20 miles per hour.

*Capacity for Traffic.*—As regards the number of trains which could be run during the 24 hours, the Serbian military authorities are reported to have worked 24 each way during critical periods in the second Balkan war. A conservative estimate for normal running would be to allow 12 each way from Salonica to Gevgeli and from Vranja to Belgrade, and rather less, possibly as few as six to eight, on the Macedonian section. Assuming only six trains a day through-traffic and taking the rail requirements of a division at the front at roughly half a train a day, and allowing for two trains a day for the requirements of the inhabitants, it follows that the railway could support a force of something like eight divisions without much difficulty. The maximum load of passenger trains is 197 tons, and of goods trains 640 tons (English).

The following information was received in July 1915 :—

Maximum carrying capacity, 6 or 7 25-truck trains daily each way.

Actual average traffic, about 4 trains daily each way.

An addition of 39 normal-gauge engines and 1,300 trucks was reported to be essential to the proper working of the line.

A considerable part of the requirements above mentioned was supplied later in the year when the carrying capacity of the line was estimated at 10 trains of 30 or 40 trucks each daily in each direction.

*Lines under construction.*—It is reported that a Decauville light railway is under construction between Monastir, Prilip, and Gradsko ; also a line from Üsküb to Monastir via Kičevo (doubtful ; February 1916).

### (3) SALONICA-DEDEAGACH RAILWAY

The Salonica-Dedeagach railway (Route VII) is a single line of the normal 4 ft. 8½ in. (1·435 metre) gauge, and provides through communication to Constantinople, 460 miles. It is essentially a strategic line, and has been planned to run at a distance of at least 12 miles from the sea, to avoid attacks from that direction. In case Salonica or Dedeagach were threatened from the sea, short loop lines have been made, so as to avoid, if necessary, approaching these places. Thus a link from Yeniköi (Bodoma) to Ferejik was built to avoid Dedeagach. The line passes inland through a mountainous country and has several steep gradients, the steepest being 1 in 40 between Drama and Musratla. The principal gradients are, ascending to Sarigöl station, descending towards Kilindir, ascending and descending between Akinjali and Poroj, and ascending between Drama and Musratla, followed by a sharp descent to Buk bridge over the river Myesta. Very difficult construction work has been necessary in the gorge of the river Myesta. There are very sharp curves between almost all the stations. The principal bridges on this line are over the river Galiko (at mile 12½), the river Struma, and the river Myesta. An important feature of most of the bridges on this line, both large and small, is the lowness of their piers ; the piers of the bridges over the rivers Struma and Myesta, for instance, are only 11 ft. high.

The rolling-stock was reported in 1909 to consist of 34 locomotives, 90 passenger carriages, 758 goods wagons and trucks.

The line is worked by a Franco-Belgian company. In addition to the branch from Yeniköi to Ferejik there is a branch from Kilindir to Karasuli.

#### (4) BULGARIAN STATE RAILWAYS

The Bulgarian railways are state lines with the exception of the Salonica-Dedeagach line (§ 3, above). Excluding this railway, the total length of line in use in 1912 was 1,210 miles, but this includes 11 miles of line belonging to private industrial concerns. The Bulgarian lines are all of normal gauge, i. e. 4 ft. 8½ in. They are under the administration of the General Board of State Railways and Ports.

The *rolling-stock* in 1912 consisted of the following :

Locomotives	212	
Coaches and wagons :		
(1) Royal and Management coaches	26	
(2) Passenger coaches	335	
Providing for 969 1st class, 2,528 2nd class, and 11,918 3rd class passengers		
(3) Postal vans	34	
(4) Luggage vans	124	
(5) Wagons chauffeurs	20	
(6) Closed wagons	2,628	total tonnage (metrical),
(7) Open wagons	1,977	
		63,355.

In 1911 foreign rolling-stock used the lines to the following extent :

Passenger coaches	3,962
Wagon-lits	2,700
Goods wagons	8,559

*Gradients and Curves.* On the Tsaribrod-Sofia-Sarambey section (Route XI, miles 0-103) there are four places where

the gradients are between 1 in 66 and 1 in 50 ; one of these, between Tsaribrod and Dragoman (mile  $12\frac{1}{2}$ ), extends over 7 miles, another near Vakarel (mile  $63\frac{1}{2}$ ) is nearly 5 miles, and two more are  $2\frac{1}{2}$  miles long.

On the same section there are four places where the radius of curves is about 300 yards.

On the Gyueshevo-Sofia branch line (Route XII), between Kustendil (mile 20) and Radomir (mile 53), there are two places where the gradients are respectively 1 in 71 and 1 in 50.

*Rails* are somewhat light. Certain parts of the Gara Belyovo-Hebibchevo section (Route XI, miles  $97\frac{1}{2}$ - $218\frac{1}{2}$ ) have steel rails weighing 71 lb. per yard ; other parts of this line have rails of varying weights down to  $65\frac{3}{4}$  lb. per yard, and the Pernik-Sofia section (Route XII, miles  $62\frac{1}{2}$ - $82\frac{1}{2}$ ) has rails of  $65\frac{3}{4}$  lb., but the rails in general use throughout Bulgaria weigh only  $62\frac{3}{4}$  lb. The rails are flat-bottomed, and are fixed to the sleepers by spikes. This is a great hindrance to high speed, especially on the older lines, where the spikes are light. In the neighbouring states of Serbia and Roumania the weights are 65 lb. and 73-80 lb. respectively.

*Sleepers.* The sleepers are of wood—oak, beech, or pine. Their size is 8 ft. 3 in.  $\times$  5 in.  $\times$  10 in. approximately, and they are laid at intervals of nearly 3 ft., except on the Tsaribrod-Vakarel and Sofia-Pernik sections, where they are at a distance of 2 ft. 8 in. On first-class foreign lines the sleepers are longer, and are laid at intervals of 2 ft. 4 in. to 2 ft. 6 in. In Serbia and Roumania the intervals are 2 ft. 7 in.

*Ballast.* Ballast is deficient in quantity. Both river gravel and broken stone (size 0.5 to 6 cm.) are used, with not more than 25 per cent. of clean sand.

*Stations.* The intervals between crossing stations vary on the main Constantinople line from  $3\frac{1}{2}$  to 14 miles, and average  $8\frac{1}{2}$  miles in a total distance of 277 miles. The stations are small, and platform accommodation insufficient. The number of sidings usually varies from two to six, and they are generally 550 yards long, sufficient to take a military train of 45 wagons.

The Constantinople line is well provided with water, and possesses seven turn-tables. Semaphores for signalling are deficient, and are only to be seen at the larger stations.

*Bridges.* A good deal of work has been done in replacing the old bridges, which were too weak to support the locomotives.

*Workshops.* The main workshop is at Sofia: minor repairs can be done at Karaagach (Adrianople).

*Fuel.* The fuel employed is coal of an inferior quality, obtained exclusively from the State mines at Pernik on the Sofia-Kustendil line.

As a general conclusion it may be said that the Bulgarian railways, in spite of the immense advantage of a uniform gauge, are not capable of a great strain of traffic on account of the condition of the permanent way, the deficiency in rolling-stock, and the mediocre quality and lack of experience of the personnel. On all the lines, except those which traverse flat country, the gradients are so steep that one locomotive is only capable of taking a train of about 13 wagons. On the level lines the bridges are defective. The highest speed of which Bulgarian trains are capable is 30 miles per hour, and the pace up hill with one locomotive does not exceed 12 miles per hour.

*Line under construction.* It is reported that a Decauville light railway is under construction from Radomir to Juma'i-Bala (February, 1916).



## ROUTE I

LAMIA (LIANOKLADI STATION)—LARISSA, 81½ miles

This is the northern section of the Piraeus-Athens-Larissa line. It surmounts the Othrys range passing through 27 tunnels (of which the longest is 557 yards) and over several bridges and viaducts, between Styrophaka and Kournovo. These are all of the same type, viz. iron girders carried on stone piers, and with stone arches in places.

miles

0	<b>Lamia.</b> From Lianokladi Station (alt. 79 ft. ; 138 miles from Piraeus) a normal-gauge branch line with through connexion runs to <b>Lamia</b> (3 miles), <b>Megalo Vrysi</b> (6 miles), <b>Hagia Marina</b> (10 miles), and <b>Stylis</b> (13 miles), which is the port for the whole district of Phthiotis.
	The line to Larissa takes a general N. direction.
1	<b>Beki-Amouri.</b> Line begins to ascend slopes of Othrys range.
9	<b>Styrophaka,</b> alt. 732 ft. Line mounts with many curves of a minimum radius of 328 yards.
21	Summit of line (alt. 1,919 ft.).
22½	<b>Kournovo-Nezero,</b> alt. 1,818 ft.
30½	<b>Dereli-Kaitza,</b> alt. 1,538 ft., near Lake Nezero or Xynias. Line follows the Sophaditikos (Pentamyli) river for some distance, then leaves the valley, describes a curve, and descends E. into the plain of W. Thessaly.
36	<b>Agoriani,</b> alt. 1,168 ft.
39¾	<b>Velisiotes,</b> alt. 856 ft.
44½	<b>Skarmitza-Domoko,</b> alt. 856 ft. Line resumes N. course.

miles	
49	<b>Bekriler</b> , alt. 456 ft.
53 $\frac{3}{4}$	<b>Demirli</b> , alt. 374 ft. Line passes over narrow-gauge railway from Volo to Trikkala (see Route IV at mile 48 $\frac{1}{2}$ ). Exchange station; military platforms, &c. Direction NNW.
60	<b>Orphana</b> , alt. 354 ft. Line crosses Enipeus, and descends into plain of E. Thessaly. Line crosses a series of low saddles and ranges of hills.
66 $\frac{1}{4}$	<b>Doxara</b> , alt. 538 ft.
71 $\frac{1}{4}$	<b>Hajilari</b> (Chatzilar), alt. 367 ft. Large village, half-Turkish, 2 miles NW.
77	<b>Hasan Tatar</b> , alt. 351 ft. Village, 2 miles W. Line runs NNE., gradually descending from hills into plain.
81 $\frac{1}{2}$	<b>Larissa</b> , alt. 249 ft.

## ROUTE II

LARISSA—VALE OF TEMPE—SALONICA, 101 $\frac{1}{2}$  miles

miles	
0	<b>Larissa</b> . This railway is a continuation of the normal gauge line from Lamia (Route I). It runs in a NNE. direction close to the E. bank of the Salamvria.
5	The river turns to the W. The line runs across the plain in the same general direction as before.
7 $\frac{1}{2}$	<b>Bakrina</b> , alt. 213 ft.
10 $\frac{1}{4}$	<b>Makrihori</b> , in a valley between two low hills. The line makes a detour of about 1 km. to the E.
14 $\frac{1}{2}$	Railway again approaches the river and turns NE.
15 $\frac{1}{4}$	Alt. 62 ft. Line crosses to l. bank of the Salamvria (bridge 130 yards long on 3 piers) and follows it closely.
15 $\frac{1}{2}$	<b>Baba</b> station, alt. 82 ft., at the mouth of the vale of Tempe, a mountain defile of great beauty, running between Mount Ossa (alt. 6,500 ft.) on the SE. and Olympus (alt. 9,780 ft.) on the NW.

miles

20 $\frac{3}{4}$	<b>Pyrgeto</b> , alt. 46 ft. End of the defile.
25	<b>Papapouli</b> (Synova, Karalik Derveni), alt. 20 ft., station on former Turkish frontier, on the Potamouli stream, about 2 $\frac{1}{2}$ miles from the shore of the Gulf of Salonica. Line now runs NW., approaching the shore.
28 $\frac{3}{4}$	<b>Pourlia</b> . Short tunnel under spur of Platamona, which falls steeply to the sea. Line continues close to the shore for about 36 miles from this point.
36 $\frac{1}{4}$	<b>Leftokarya</b> .
42 $\frac{1}{2}$	<b>Litochori</b> . Bridges over marsh between this and Katerini.
44 $\frac{1}{2}$	<b>Karitza</b> .
50 $\frac{1}{2}$	<b>Katerini</b> . Station 1 $\frac{1}{4}$ mile E. of town, towards the shore.
58 $\frac{3}{4}$	<b>Tuzla-Kitro</b> .
66 $\frac{1}{4}$	<b>Leftherochori</b> .
71	<b>Livanovo</b> . Beyond this place the Vistritsa river is crossed on a bridge 160 yards long on 3 piers.
80	<b>Plati</b> . Junction with Salonica-Monastir Railway, which is followed to Salonica (see Route V, miles 21 $\frac{1}{2}$ –0).
101 $\frac{1}{2}$	<b>Salonica</b> .

## ROUTE III

VOLO—VELESTINO—LARISSA, 37 $\frac{1}{2}$  miles

This is a narrow-gauge railway.

miles

0	<b>Volo</b> . Large station, with quay accessible to ships drawing 19 ft. The line runs in a general W. direction across a well-tilled plain. To the NE. rises Mount Pelion (5,348 ft.).
6	<b>Latomion</b> , alt. 450 ft. Line enters the pass of Pilav-tepe, after which it descends.
11	<b>Velestino</b> , alt. 262 ft. Junction of the railway to Trikkala (see Route IV). The town lies W. of rail-

miles

way. The line now turns NW. and runs through the mountainous E. part of the Thessalian plain.

20 **Gerli**, alt. 206 ft.

22½ **Kililer**, alt. 207 ft.

26½ **Tzoulari**, alt. 206 ft.

30½ **Topouzlar**, alt. 243 ft. Line crosses stream.

37½ **Larissa**, alt. 249 ft. The line runs into the same station as the broad-gauge line. For the greater part between Topouzlar and Larissa the line runs on an embankment.

## ROUTE IV

VOLO—KALABAKA, 100 miles

This is a narrow-gauge railway.

miles

0 **Volo** (see Route III).

11 The Trikkala line leaves the Volo-Larissa railway at **Velestino Junction** (11 miles from Volo). It runs at first SE., penetrating by several cuttings the chain of hills separating the plain of Velestino on N. from that of Halmyros on S.

17½ **Persoufli**, alt. 577 ft. Line turns in general W. direction, continues to rise, and reaches summit (alt. about 800 ft.), 2 miles short of Aivali.

25½ **Aivali**, alt. 696 ft. Siding for chrome mine just beyond.

33½ **Orman Magoula**, alt. 364 ft. Line now approaches r. bank of deep bed of Shinarli.

37½ **Lazarbougá**, alt. 495 ft. Beyond the station line crosses river.

41½ **Phersala** (Pharsalos), alt. 443 ft. Town, on r. bank of Phersaliti, at N. foot of spur (alt. 361 ft.) of Mount Kasiadiari.

Line proceeds in general W. direction across plain of Phersala.

miles

48½	<b>Demirli</b> , alt. 374 ft. Line passes under broad-gauge line from Lamia to Larissa (see Route I at mile 53¾).
58½	<b>Sophades</b> , alt. 361 ft. Artesian well.
68½	<b>Karditza</b> , alt. 371 ft. Town ¾ mile S. of station. Line now turns WNW.
75	<b>Phanari</b> , alt. 328 ft. at station. Small town on rocky hill (ancient <i>Ithome</i> ) dominating whole plain. Line turns NNW.
79	<b>Phanari-Magoula</b> , alt. 348 ft. On leaving station line crosses the <b>Pliouri</b> .
82	<b>Stephanossaios</b> , alt. 354 ft. Line turns N. and crosses the <b>Salamvria</b> (bridge, 2 arches of 145 ft., 2 of 33 ft.).
83½	<b>Trikkala</b> station, alt. 368 ft. Line traverses extensive vineyards NNW.
90	<b>Mertzi</b> , alt. 410 ft.
93	<b>Voivoda</b> , alt. 479 ft. Trikkalinos river runs ½ mile NE. parallel to line.
96½	<b>Kouveltzzi</b> , alt. 564 ft.
100	<b>Kalabaka</b> , alt. 696 ft. Town situated on rising ground at point where the Salamvria enters Thessalian plain. Starting-point for journey from railway to the monasteries of Meteora.

## ROUTE V

SALONICA—MONASTIR,<sup>1</sup> 138½ miles

miles

0	<b>Salonica</b> . The Monastir and Üsküb lines start from the same station.
6¼	Bridge over <b>Galiko</b> .
7	<b>Tekeli</b> station.
13	The <b>Vardar</b> is crossed by an iron bridge, and the line runs SW.
18	<b>Kerjalar</b> station.

<sup>1</sup> The accounts of railways from Salonica deal with their normal conditions before the war, unless otherwise stated.



miles

- 21½ **Plati** (village  $\frac{1}{2}$  mile S. of line). Junction with Greek railway from Larissa (see Route II at mile 80).
- 27 **Gida-Kapsohora** station.
- 42 **Verria** (Karaferia). Line bends N. to Vodena.
- 50 **Nyaousta** (Agostos) station. From an altitude of 239 ft. the line sinks to 105 ft., crossing the marshy valley of the **Samorina** and the river itself.
- 60 **Vertekop** station. The line now passes over ground rising 919 ft. to Vodena. In the course of its ascent the railway winds, sometimes sharply, sometimes more gently, round the slopes of the hills, preserving the highest permissible gradient of 1 in 40. It pierces the mountain by means of 5 tunnels of 66, 169, 683, 66, and 55 yards respectively. Just before reaching Vodena the line crosses a ravine by a viaduct 98 yards long with 3 spans of 33 yards, having two iron pillars resting on stone piers. The viaduct is on a curve of 328 yards radius and has a gradient of 1 in 40.
- 69 **Vodena**. The line rises as steeply as before. On the stretch to mile 73 there are—tunnel No. 6 of 98 yards; second viaduct with 6 spans of 33 yards each; tunnel No. 7 of 98 yards, No. 8 of 66 yards, No. 9 of 383 yards, No. 10 of 262 yards, No. 11 of 93 yards; third viaduct with 2 spans of 49 ft. and 5 spans of 98 ft., four iron pillars of 62, 131, 108 and 62 ft., and two stone pillars; tunnel No. 12 of 191 yards; fourth viaduct, 62 ft. high, with 2 spans of 49 ft., and 3 of 98 ft., and 2 stone and 2 iron pillars; finally tunnel No. 13 of 744 yards.
- 74 **Vladovo** station, where a plateau 1,407 ft. above sea-level is reached.
- In the 11-mile stretch from Vladovo to Ostrovo the line runs through the pass (1,930 ft. high) between the valley of Vladovo and the lake of Ostrovo 1,772 ft. above sea-level.
- 85 **Ostrovo** station on the lake of that name ( $12\frac{1}{2}$  miles

miles

long and  $2\frac{1}{2}$  to 3 miles broad). After leaving Ostrovo the line closely follows round the N. and W. shores of the lake. Here the cliffs fall sheer to the water. At the foot of the cliffs and shortly before Pateli the line pierces the mountains by means of a 50-yard tunnel.

95 $\frac{1}{2}$ 

**Pateli.** Turning SW. the line leaves Lake Ostrovo, and, passing through a fertile and open depression, approaches Lake Petrsko and traverses a flat ridge. Alt. 1,920 ft.

100

**Sorovich** station. The railway crosses the fertile valley of **Egri Bujak**, going round Lake Petrsko in a SW. direction.

104

**Ekshisu** station, alt. 2,041 ft. From this point the line runs N. and begins to rise in order to traverse the pass of **Tserovo** (2,523 ft.). The train ascends slowly with many sharp turnings and gradients up to 1 in 40, crossing the 5th (and last) great viaduct between Salonica and Monastir. This has 4 spans of 131 ft., two iron pillars 62 and one 41 ft. high. Shortly after the pass is the last tunnel, 82 yards long. After traversing the pass, in which there is a siding for the use of banking engines, the line turns W. by N. and sinks for a stretch of  $4\frac{1}{2}$  to 5 miles at a gradient of 1 in 40.

112

**Banitsa** station, alt. 2,153 ft., in the plain of Monastir.

118

**Florina** station, alt. 2,031 ft.,  $2\frac{1}{2}$  miles W. of the town. After Florina the line turns generally NNW. to Monastir. Numerous bridges over streams in the plain.

128

**Kenali** station, alt. 1,929 ft.

138 $\frac{1}{2}$ 

**Monastir**, alt. 2,028 ft.

## ROUTE VI

SALONICA—NISH<sup>1</sup>, 283 milesmiles  
0**Salonica.**

The Belgrade and Monastir lines start from the same station, which is on the W. of the town. They are connected by sidings with the harbour and docks. Length of station platforms : accessible lengthwise, 24 yards ; accessible endwise, 109 yards ; alongside goods station, 109 yards. There are 10 sidings, total length about 5,600 yards. (The terminus of the Salonica—Dedeagach line lies a little farther north.)

The two lines are connected by a siding at the **Military Station** (2½ miles), which has a 550-yard platform and several 220-yard sidings.<sup>2</sup>

On leaving Salonica the line runs NW. over a bare plain to the river Galiko (7 miles).

14

**Topsin.** Double line for 400 yards, and a siding for 200 yards. No water-tanks. The Monastir main road crosses the railway ½ mile before the station ; 2½ miles beyond station the railway turns N. and ascends the valley of the Vardar, keeping close to l. bank.

26½

**Amatovo.** Two sidings, total 500 yards ; water-tank. Alt. 88 ft.

The line now follows for about 6 miles the western shore of Lake Amatovo, and then turns NW. through meadows and rich cultivation to—

35

**Karasuli Junction.** The main line station is similar to those at Topsin and Amatovo, but is connected by a short branch with **Karasuli Station** on a branch line to **Kilindir** connecting with the Salonica—Dedeagach line.

<sup>1</sup> See footnote to Route V.

<sup>2</sup> All stations, unless otherwise stated, have at least one 200-yard siding as well as a double line for 400 yards to allow of trains crossing.

miles

This latter station, alt. 95 ft., has been made entirely for military purposes, and extensive sidings (610 yards) permit of six trains standing in the station at a time. It has a turn-table, water-tank, and small coal depôt. The branch line,  $15\frac{1}{2}$  miles long, turns off here to join the Salonica-Dedeagach line at Kilindir. There is a military crossing-place on it at 6 miles from Karasuli. This is a strategic loop-line to avoid Salonica if that were threatened from the sea ; three bridges on it were blown up by the French in January, 1916.

Shortly after leaving Karasuli the hills close in and the main line enters the **Chingane Boghaz**, or defile of the Vardar, running alongside the stream. It crosses to the r. bank of the Vardar by a bridge of 15 lattice girder spans of about 60 ft. each on masonry piers some 13 ft. above the water-level. Rails run above the girders, and there is no planking or roadway by which vehicles might be taken across on an emergency. There is only some planking,  $2\frac{1}{2}$  ft. wide, forming a passage across. There is a hand-rail. Just north of the bridge is—

37½

**Gümenje** station, alt. 121 ft. Two sidings, total 620 yards. Near the village of **Bohemitsa** and some 5 miles from **Gümenje** which lies to the SW. It is only a passing station.

The line enters **Chingane** gorge and follows close alongside the river, which is here flanked by bare stony hills of no great height. Higher ranges to W. The line crosses the **Koja Dere** Bridge by three 62-ft. lattice girder spans on stone piers some  $11\frac{1}{2}$  ft. above water-level. Other small valleys are crossed by single 30-ft. spans of similar construction. The slopes are not very steep, and in places the line is cut out of the hillside. There are no points where the line could be seriously interrupted, although temporary damage might be done at the small bridges and steeper cut-

miles

tings. The line now enters the open cultivated basin of Gevgeli near Sehova. Hills are rounded and fairly easy towards Doiran, but more difficult and rising very steeply to the W. leading up to the Marianska plateau. Immediately S. of Gevgeli the line crosses the broad sandy bed of the **Lyumnitsa** stream by a bridge of fifteen 30-ft. spans of lattice girders on masonry piers some 8 ft. above the bed of the stream.

- 48 **Gevgeli** station, frontier (Serbian, Djevdjelija). Alt. 171 ft. Has one passing line 500 yards long, and a siding 200 yards in length. A new bridge over the Vardar was completed east of Gevgeli early in 1915, consisting apparently of three 148-ft. bowstring girders on masonry piers. This bridge is very important when the river is in flood, as it forms the chief means of communication with **Doiran** and **Strumitsa**. At the bridge are two low stony hills, rather isolated, on either bank, those on the l. bank being slightly the higher. Low easy hills trend off towards Doiran.

The line ascends the cultivated valley of the Vardar.

- 50½ The line crosses the **Sermenli** stream at Mrzenci village by a bridge of seven 33-ft. lattice girders on piers hardly 4 ft. above the stream, which is a mountain torrent in a wide sandy belt.

- 53 At **Pardovitsa** is a similar stream, with shingly bed, crossed by five 40-ft. girders with low piers. This torrent above the bridge is flanked by stone-faced embankments.

- 55 Bridge of five 30-ft. girders over a winding mountain stream. Low outliers covered with brushwood lie about 1¼ mile W.

- 60 Bridge of seven 30-ft. girders of similar construction to the above. An open cultivated valley lies to the E.

- 64 **Mirovča** station, alt. 230 ft., is similar in design to that of Gevgeli. Here is a triangle to enable locomotives to reverse.



miles

$1\frac{1}{4}$  miles farther on the line crosses the Vardar by a bridge of 8 spans each of 69 ft. The bridge has masonry piers, and is some 23 ft. above water-level. It has lattice girders underneath the rails. Light iron hand-rails and narrow planking across, otherwise no passage fit for wheels or for troops.

- 66      **Strumitsa** station, alt. 243 ft. Sometimes called Davidovo or Hudovo from neighbouring villages. This station is close to the bridge on the left bank, and is connected with the small Bulgarian town of **Strumitsa** by a good cart-road, which makes a wide bend to the SE. before the **Blagusa Planina** is crossed on the way to the town. The station has one passing line of 400 yards in length and a siding 200 yards; length of platform 87 yards.

The line enters the narrow valley of the Vardar; steep hills covered with sparse brushwood close in on either hand. Between Strumitsa station and Demir Kapu is the most difficult part of the Vardar valley.

The **Arazli** stream is crossed just beyond Strumitsa station by a bridge of eight 34-ft. spans. This mountain stream has a stony channel and little water except in flood-time.

- 68 $\frac{3}{4}$       The **Gradeshka** stream is crossed by a bridge of three 30-ft. spans. The defile closes in, and has stony slopes covered with brushwood.

- 70 $\frac{1}{2}$       The **Vodadolma** stream, which runs in a deep rocky valley, is crossed by three 30-ft. spans. A very steep rocky slope on the left bank of this stream is underpinned in places.

- 71 $\frac{1}{4}$       Third **Vardar** bridge—the railway bends sharply across the narrow valley and crosses the Vardar by five 79-ft. and two 40-ft. lattice girder spans, on masonry piers some 30-ft. above water-level.

This bridge would be difficult to repair if blown up. Open space on the right bank.

miles

The valley opens somewhat into patches of cultivation: steep stony hills on either hand covered with scrub.

The hills close in and form a narrow rocky gorge called the **Demir Kapu** (Iron Gate) defile, with almost perpendicular cliffs of hard limestone on either hand. The line runs close under the cliff and some 62 ft. above the water-level.

77½

At the western mouth is a projecting rock through which runs a tunnel partly lined.

On passing the western end of the defile the valley opens out to about ½ mile and is well cultivated.

The **Bošava** stream, a mountain torrent with a wide shingly bed, flows into the Vardar from the south immediately before **Demir Kapu** station is reached. It is crossed by eight 49-ft. lattice girder spans on low masonry piers.

78

**Demir Kapu** station, alt. 351 ft. 440 yards of sidings. Slightly larger than most of the other stations. Three trains can be drawn up simultaneously. An open cultivated valley lies on either hand and is bordered by stony hills covered with brushwood. Higher up the valley a few small streams are crossed by culverts and single spans of 30-ft. girders. At the sharp bend of the stream near **Negotin** the Monastir-Ishtib chaussée comes into view, winding along clay hills to the west just above the line.

90½

**Krivolak** station has a passing line and also a small siding 200 yards long. It is important as being the station for **Ishtib**, to which there is a fair chaussée. Length of platform 132 yards.

Continuing up the open Vardar valley, well cultivated to the S., one comes to the **Tikveš** district, inhabited mostly by Pomaks.

97¼

**Crna** (Kara Su) Bridge.—The Crna bridge crosses

miles

a large tributary from the Monastir plain, and consists of seven 79-ft. lattice girder spans on stone piers 20 ft. above the water.

104

**Viničani-Gradsko** station is an ordinary passing station with a siding of 200 yards. There are five 40-ft. lattice girder spans over the **Babuna** stream and three 40-ft. spans over the **Topolka** stream. The line passes through a cultivated district of low rounded shaley hills where the villages are mostly Pomak.

Approaching **Veles** (Köprülü) from the S. the line runs close along the stream and about 26 ft. above it. A short rock-tunnel (unlined) passes through a projecting spur.

122

**Veles** (Köprülü) station was designed to be larger than it is, and a wide space for sidings remains empty (1915). Length of platform 132 yards, but there is a length of 800 yards between the points where the passing lines touch the main line. The length enclosed between the passing lines is 600 yards. There is a turn-table and a goods-shed.

The place was formerly an important Turkish military centre, with barracks, and supplied all the posts for watching this part of the Vardar valley against komitajis.

The line proceeds through a small cultivated basin, after which the valley narrows, with steep rocky slopes covered with brushwood. Between here and Zelenikovo the Golesnica Planina rises to the SW. and there is difficult hill country on the other side. There are several short lengths of rock-cutting and a rock-tunnel 50 yards long, unlined.

131

Rock-tunnel of 100 yards, mostly unlined, but with masonry-lining in places. Some rock-cutting.

Of the two bridges over the **Vardar**, which come in close succession near **Novoselo**, the first is of four

miles

60-ft. plate girders on masonry piers some 23 ft. above the water, without hand-rails and with a footway of planking; while the second bridge has four 60-ft. plate girders and is of similar construction.

Over the narrow **Kaidinar** valley is one 39-ft. span. The valley opens at **Novoselo**, and low hills covered with brushwood on either side flank a cultivated valley.

138

**Zelenikovo** (or **Zeleniko**) station is an ordinary passing station with a siding 200 yards in length.

There is a rough wooden trestle-bridge over the Vardar opposite the station.

Immediately N. of Zelenikovo is the wide cultivated plain of **Ŭsküb**, and the line for the first time since **Mirovča** deserts the actual windings of the Vardar.

A few small culverts are crossed before **Ŭsküb**.

151

**Ŭsküb** (Skoplje). From here a line to Mitrovica branches in a general NNW. direction. The station is connected with the town by a broad metalled road. At the side of the goods station is an open yard suitable for detraining troops and connected with the town by a road. Total length of platforms, 70 yards. There are two end-loading platforms for guns to the E. of the passing line next to the line from Salonica to Mitrovica. On the same S. side of the station are the customs offices and a goods-shed with platform 100 yards long and nearly 4 ft. high. On the other side of the station, E. of the road to the town, are military stores and a steam flour-mill. At the other (W.) end of the station are an end-loading platform, an engine-shed, a water-tank, and coal and wood fuel depôts.

There is a small station (**Vojvoda Putnik**) on the Nish line, before the Vardar bridge is reached, which has only a passing siding, and there is a halt at **Ajvatovac**.

miles

The triangle formed at the junction of the Nish line can be used for turning.

After leaving Ūsküb the line crosses the Vardar by an iron bridge 130 yards long, and then runs in an easterly direction for 54 miles over open undulating country to the old frontier station of Zibevče-Ristovać. In this stretch there are no tunnels, and only four bridges over 10 yards in length. But there are some very heavy gradients.

164     **Hadžarlar** or **Aleksandrovo**, alt. 899 ft. From here the railway turns sharply northward. Between this and Kumanovo several steep gradients, 1 in 66 for  $1\frac{1}{4}$  miles each way between Aleksandrovo and Kumanovo.

175     **Kumanovo**, alt. 1,050 ft. This station is 2 miles by road from Kumanovo town.

On leaving Kumanovo station the line proceeds in a northerly direction up the valley of the Banjska river and follows its right bank. Heavy gradients of 1 in 70 for  $1\frac{1}{4}$  miles each way between this station and Tabanovche.

183     **Tabanovche** (Serbian Tabanovac), alt. 1,270 ft. Line here continues up Banksja valley to—

189     **Preshovo** (Serbian Preševo). A military station with a 440-yard platform and several sidings. Several gradients of 1 in 80 for  $1\frac{1}{4}$  miles each way between Preshovo and Bukarovče.

192     **Bukarovče.**

200     **Bujanevce.**

205     **Zibevče-Ristovać.** This was formerly the frontier station (it had been closed in April, 1915), and has extensive sidings. The railway now crosses the Morava and runs down along the left bank to Vranja.

212     **Vranja.** The station is 1 mile south of the town, which is situated on the hills and is connected with it by a good road.



miles

From here the line crosses the river and runs at the foot of high mountains for 5 miles, and then recrosses the river at—

220 **Priboj.** Line runs through the valley of the **Binačka Morava.**

227 **Vladičin Han.** After passing this station the line passes through several tunnels in the narrowing valley before reaching—

233 **Džep.** This station is situated at the southern entrance of the **Grdelica** defile. Through this narrow wooded cañon, where the road and railway have with difficulty been carried along the foot of the cliffs, the line runs for 11 miles, crossing the Morava river at three points before reaching—

245 **Grdelica.** On leaving this the line crosses the river twice, and then leaving it runs straight NW. across a spacious valley to—

254 **Leskovac.** On leaving Leskovac the line crosses the **Veternica** river and then runs NW. over open country to—

261 **Pečanjevce.** The valley here narrows again and the line, crossing the river **Jablanica**, arrives at—

266 **Brestovac.** On leaving this station the line crosses the rivers **Toplica** and **Morava** at the entrance of a narrow pass dominated by the ancient castle of Kurvingrad.

277 **Belotinci.** The railway now runs N. along the eastern edge of the widening valley till it strikes the river **Nišava** and then turns sharply eastward.

283 **Nish,** the junction of the Salonica and Constantinople lines, and eventually also of the Roumanian-Adriatic line, is the most important station in the kingdom. There are 16 sidings, all of 440 yards, and facilities for dealing with a considerable number of trains at a time. There are also railway repairing shops. The station lies W. of the town.

## ROUTE VII

SALONICA—DRAMA—DEDEAGACH,<sup>1</sup> 276 miles

miles

0

**Salonica.**

The line leaves Salonica from its own station, which is situated a short distance N. of the main Salonica station, and proceeds in a north-westerly direction and parallel to the Salonica-Belgrade railway line as far as—

2

**Military Station.** This is connected by a siding with the Salonica-Belgrade railway.

5½

The line approaches the **Galiko** river, turns sharply northwards, and follows the l. bank of the river through flat and open country.

9

Military crossing.

12½

**Stena Galiku.** Here the line crosses the Galiko by a bridge of two 150-ft. spans, and proceeding along the r. bank and through open country as before, reaches—

18½

**Salamanli**, alt. 285 ft. The line then proceeds through cultivated undulating country along the r. bank of the Galiko, and, rising steadily all the time, arrives at—

26½

**Sarigöl**, alt. 676 ft. This station is connected by a good road (1¼ miles) with **Kukush**. The line has now left the Galiko. Continuing in a northerly direction it reaches the village of **Haji Yunus**, alt. 374 ft., whence it descends into the valley of the **Ayak** through well-cultivated and undulating country.

32

Military crossing.

39

**Kilindir** junction, alt. 298 ft. This station is situated on the l. bank of the Ayak river and about ½ mile S. of the town of the same name.

A short line (15½ miles) branches off from here

<sup>1</sup> See note to Route V.

miles

down the valley of the Ayak to **Karasuli** on the Salonica–Belgrade line, thus connecting the two railway systems.

On leaving Kilindir the line continues in a northerly direction through hilly country and along the l. bank of the Ayak to a point  $1\frac{1}{4}$  miles S. of Lake Doiran, which is drained by this river. At this point the line crosses the Ayak and runs into—

44½ **Doiran** station, alt. 489 ft. This station is situated on the southern shore of Lake Doiran and about  $2\frac{1}{2}$  miles E. of the town of the same name, and is connected with it by a good carriage road.

On leaving Doiran station the line runs along the SE. shore of Lake Doiran for some 2 miles, and then assuming a north-easterly direction it runs over open swampy country till it reaches the **Koja Su**, a river which runs into the lake near its NE. extremity.

51 The line crosses the **Koja Su** by a bridge and then following the right bank of this river arrives at—

53 **Akinjali**, alt. 630 ft. From here the line still follows the valley of the **Koja Su** and ascending sharply reaches in 3 miles the nek of **Dova Tepe** (alt. 892 ft.), which connects the Belashitsa mountains on the N. with the Krusa Balkans (**Kara Dag**) on the S. Here the line descends into the valley of the **Butkovo** and follows the l. bank of this river till it reaches—

62 **Poroi** station, alt. 259 ft. The village of **Poroi** is about  $1\frac{1}{2}$  miles N. of this station and is connected with it by a country track. The line, after  $1\frac{1}{4}$  miles SE., assumes an easterly direction, and passes through open marshy country to mile 68. The line runs for  $2\frac{1}{2}$  miles along a narrow strip of level ground between the northern shore of **Butkovo Göl** (lake) and the Belashitsa mountains, and then proceeds over open country.

68 Military crossing.

miles

77½

**Haji Beylik**, alt. 131 ft. On leaving this the line runs E. for 2 miles and then turns ENE.

81

The river **Struma** was crossed by a bridge of five 100-ft. spans (blown up in January 1916). After this the line turns sharply S. and then SSE. and leaves the river.

84

**Demir Hisar** station, alt. 489 ft. There is also a military station with good platforms and sidings. A good road connects the station with the town of **Demir Hisar** (Valovishta), 2½ miles SE.

The line now proceeds over open and low-lying ground intersected by many water-courses.

93

**Prosenik**, alt. 79 ft. The line now takes a more south-easterly direction.

99

The line crosses the Salonica-Seres main road.

103

**Seres**, alt. 82 ft. The town of Seres is just N. of the station and is situated on the lower spurs of the Sharliya mountains.

The line now crosses open marshy country near the eastern shore of the Tahinos Göl (lake).

108

Military crossing.

112

Line begins to ascend the lower spurs of the Sminitsa mountain.

117

**Porna**, alt. 259 ft. This is the station for **Ziliahovo** (Zihna), a small town in the mountains 3 miles NE. of the station, and connected with it by a carriage road.

122

Line descends to **Chepelje Dere**, turns sharply NE., and follows the r. bank of the river: then, crossing it, reaches the valley of the Dramanitsi and ascends it.

123½

Military crossing.

130½

**Angista**, alt. 102 ft. The line now ascends sharply, and, with several tunnels, passes through the

133 }

**Tasholuk** defile, alt. 354 ft. The line then descends till it reaches the river **Nevrekop** which is crossed by a bridge. The railway. then crosses open low-lying country intersected by many streams.

135 }

miles

- 137 **Fotolivo** (Otelisos, Otoligos) station.
- 145 **Drama** station, alt. 321 ft. Town 1 mile NNW. to which there is a carriage road.  
General direction is now NE. Line enters more hilly country, and gradually ascends.
- 150½ Alt. 610 ft.
- 154½ **Musratla** (Nusretli), alt. 846 ft.
- 159 Alt. 866 ft.
- 161 Alt. 1,056 ft. Military crossing. Siding of 400 yards. Summit of line, which now begins to descend a side valley into valley of the Myesta (5 tunnels of 93, 93, 131, 93, and 112 yards in length).
- 164 Alt. 820 ft.
- 166½ Alt. 417 ft.
- 167 Cross the **Myesta** by bridge.
- 168 **Buk**, alt. 390 ft. One siding of 400 yards and one of 80 yards. Line follows valley of Myesta along l. bank, SE.
- 176 **Yeniköi** station, alt. 315 ft. One siding of 400 yards.
- 185 Alt. 230 ft. River and railway enter gorge. Difficult engineering on this section. About 20 tunnels, of which the longest are 395, 317, 324, 636, and 353 yards respectively.
- 195 **Okjilar** station, alt. 134 ft. One siding of 400 yards and a water-tank fed by a steam-pump from the river. End of gorge: Line makes a detour S., and then runs NNE. to Xanthi, first over low-lying ground, then ascending to cross a spur.
- 197½ Alt. 203 ft. Crest of spur.
- 199½ Alt. 134 ft. Line reaches plain again.
- 204 Ascent begins over low spur.
- 204½ **Xanthi** (Eskije) station. Alt. 203 ft.  
The station has sidings 1,200 yds. in length, a goods-shed to unload two wagons at a platform 3 ft. high, a small engine-house, and a water-tank



miles

- fed by a steam-pump. Town  $\frac{1}{2}$  mile N. to which there is a carriage road. Line continues 1 mile NNE., then in general direction E. to **Gumuljina**, along plain at a distance varying from  $2\frac{1}{2}$  to  $\frac{1}{4}$  mile from foot of hills, and crosses numerous streams.
- 207 $\frac{1}{2}$  Alt. 223 ft.
- 214 **Kisiljaköi** station, alt. 72 ft. One siding of 400 yards. At head of Baru lake, at S. end of which is Porto Lagos.
- 223 Alt. 89 ft. Cross **Kuru Chai**.
- 224 **Narli** station, alt. 62 ft. One siding of 400 yards and water-tank fed by steam-pump.
- 229 Alt. 138 ft. Cross **Aksu Dere**.
- 233 **Gumuljina** station, alt. 108 ft. Three sidings of 400 yards each, a small engine-shed and a water-tank. Town  $\frac{1}{2}$  mile N. to which there is a carriage road. General direction of line now SSE. Line ascends across a low ridge.
- 236 Alt. 203 ft. Top of ridge. Line descends.
- 240 $\frac{1}{2}$  Alt. 56 ft.
- 242 Cross **Falurli Chai**.
- 243 **Demir Beyli** station, alt. 59 ft. One siding of 400 yards. General direction E. by S. Line runs up valley of Kuchuk Su, and crosses many affluents.
- 252 **Kösse Mejid** station, alt. 203 ft. One siding of 400 yards, water-tank, small engine-shed, and a coal depôt. Line climbs to watershed.
- 256 Alt. 505 ft.
- 257 $\frac{1}{2}$  Two tunnels of 40 and 58 yards length.
- 259 $\frac{1}{2}$  Summit, alt. 912 ft. Line crosses into valley of stream running down to Dedeagach.
- 262 **Kirka** station, alt. 617 ft. One siding of 400 yards.
- 264 Alt. 466 ft. Line turns SSE. and enters gorge, with several bridges across windings of river.
- 267 Alt. 285 ft.
- 268 $\frac{1}{2}$  Three tunnels, 400, 208, and 190 yards in length.

miles	
270½	<b>Yeniköi</b> (Bodoma) station, alt. 174 ft. Junction of loop line to <b>Ferejik</b> (see below). Two sidings of 500 yards each.
274	Military station and connexion with Dedeagach-Kuleli Burgas line. Platform 430 yards long by 10 yards broad and 3½ ft. high with a dead end at each end for loading guns; also a smaller platform, 50 yards long by 10 yards and 3½ ft. high, for loading ammunition. The main platform accommodates 54 wagons, the ammunition platform 6. Total length of sidings 1,350 yards. There are no lighting arrangements. The road from this station to Dedeagach town is an unmetalled cart-track. The ground near the station is firm and does not easily cut up after rain.
276	<b>Dedeagach</b> station, alt. 16 ft. 400 yds. from the sea. There are 1,700 yards of sidings, a water-tank fed by a steam-pump, a small engine-house, a turn-table, and a small coal depôt. SE. of station there is an infantry barrack accommodating 300 men.

## ROUTE VIII

YENIKÖI—FEREJIK, 23½ miles

Line runs across hilly country in general E. direction, winding much.

miles	
0	<b>Yeniköi</b> (Bodoma) junction (see above).
4½	Alt. 377 ft.
6	Alt. 239 ft.
9	Alt. 610 ft.
12	Alt. 216 ft.
15	Alt. 207 ft.

miles

17½

Alt. 410 ft.

23½

**Ferejik.** Station has 1,000 yards of sidings, water-tank, and turn-table. This is a separate station from the station of the same name on the Dedeagach-Kuleli Burgas line, which is situated ¼ mile to the N. and with which there is a connecting line.

## ROUTE IX

DEDEAGACH-KULELI BURGAS, 69½ miles

miles

0

**Dedeagach** station, 1 mile E. of town. Seven sidings, one of 1,500 yards, four of 800 yards each, one of 720 yards, and one of 350 yards. Two lines run on to the harbour and custom-house, where there are five sidings, of which three are 280 yards long and two are 130 yards long. There are two engine-houses, repairing-works, a coal depôt, stores, and a petroleum store. Branch line from station makes junction with Salonica line ½ mile NW. at the Military Station.

Line runs in general E. direction close to shore across low-lying ground, crossing several streams.

7½

Coast-line turns S., and line runs along foot of low hills covered with brushwood, with road about 1¼ miles N.

13

Line reaches bank of N. mouth of Maritsa, and turns in general NW. direction, still following foot of hills to N.

17½

**Ferejik** station, alt. 26 ft. Two sidings of 400 yards each and a water-tank. Town 1½ miles W. on hill. There is a carriage road to the town. Vineyards.

Junction of branch line to Salonica line at **Yeniköi**

miles

(see Route VIII). The station on this branch is  $\frac{1}{4}$  mile S. and there is a connecting line.

Line runs in general NNE. direction up W. side of Maritsa valley, at average distance of 2 miles from river.

23 Line crosses the flat-topped Merhumli spur (alt. 656 ft.), which runs down to river bank.

25 $\frac{1}{2}$  Line leaves spur, and re-enters plain. There is here a short passing siding for trains.

30 $\frac{1}{2}$  **Bedekli** station. One siding of 400 yards. Direction of line N.

38 Line crosses stream, and ascends another spur which runs down to river bank.

40 $\frac{1}{2}$  Line leaves spur and re-enters valley, which is here narrower. River  $\frac{1}{2}$  mile E.

43 **Sufli**. Three sidings of 400 yards each and a water tank. Population mainly Greek. Vineyards.

Direction first N., then E., then NE. up valley to Demotika.

59 $\frac{3}{4}$  Line crosses the **Kizil Deli** river.

The bridge consists of one 150-ft. box girder span with two 100-ft. lattice girder spans. The rails are 40 ft. above the stream.

61 **Demotika** station, alt. 69 ft. It has three sidings of 400 yards each, and a small goods station with a loading platform. Town 1 mile W., on banks of Kizil Deli river.

Direction changes to E. Line winds round a high spur, which commands the bridges across the Maritsa (see Route XI at mile 271 $\frac{1}{2}$ ) and all the country eastwards.

67 $\frac{1}{2}$  Valley becomes a gorge, through which river and railway run. Line turns N.

69 $\frac{1}{2}$  **Kuleli Burgas** station, alt. 79 ft., on Sofia-Constantinople line (Route XI, at mile 270).

## ROUTE X

NISH—TSARIBROD, 62 miles	
miles	
0	<b>Nish.</b> From Nish station, SW. of the town, the line runs S. of the town in an E. direction along the southern edge of the Nishava valley.
7	<b>Banja.</b> Sulphur baths.
11	<b>Sičevo.</b> Line enters the Nishava gorge (Sičevska Klisura), a wild cañon with bare cliffs, 1,000 ft. high, towering above the river. Crossing the <b>Nishava</b> twice and passing through five tunnels, the longest of which is 252 yards, it emerges from the gorge at—
23 $\frac{1}{2}$	<b>Crvena Reka.</b>
29	<b>Bela Palanka.</b> Within a mile before this station, line crosses the <b>Nishava</b> twice.
36	Line crosses from l. to r. bank of the <b>Nishava</b> .
40	<b>Staničenje.</b>
41 $\frac{1}{2}$	Line crosses loop of river by two bridges.
46 $\frac{1}{2}$	<b>Pirot.</b> Line crosses again to l. bank. Line then runs SE. first over an open plain and then in the narrowing valley to—
54 $\frac{1}{2}$	<b>Sukovo.</b>
58 $\frac{1}{2}$	Frontier.
62	<b>Tsaribrod</b> (Caribrod).

## ROUTE XI

TSARIBROD—SOFIA—ADRIANOPLE—UZUN  
KÖPRÜ, 277 miles

miles	
0	<b>Tsaribrod</b> , alt. 1,463 ft. Frontier station, 214 $\frac{1}{2}$ miles from Belgrade.
	Line proceeds up Nishava valley.
$\frac{1}{2}$	Cross to r. bank of <b>Nishava</b> .
2 $\frac{1}{4}$	Recross to l. bank.



miles

- 4 $\frac{3}{4}$  Leave Nishava valley and turn up valley of Yezevitsa.
- 7 $\frac{1}{4}$  Cross to r. bank of **Yezevitsa**.
- 10 Recross to l. bank.
- 11 $\frac{1}{4}$  Leave Yezevitsa and ascend to Dragoman pass.
- 12 $\frac{1}{2}$  **Dragoman** station, alt. 2,365 ft. Line descends through bare or scrub-covered hills.
- 21 $\frac{1}{2}$  **Slivnitsa**, alt. 1,890 ft. Small village at edge of Sofia plateau. Scene of decisive battle of Serbo-Bulgarian War, 1885.
- 23 Cross the **Slivnishka**.
- 30 **Kostinbrod**. Cross the **Belitsa** immediately beyond station.
- 32 $\frac{1}{2}$  Cross the **Tsernabara**.
- 35 $\frac{1}{2}$  Cross the **Banska**.
- 39 $\frac{1}{2}$  **Sofia**, alt. 1,762 ft. Station 1 $\frac{1}{2}$  miles from centre of town. Branch lines (1) N. up Isker valley to Plevna-Varna-Ruschuk; (2) SW. to Kustendil.  
Line proceeds ESE.
- 46 Main bridge over the **Isker** (alt. 1,808 ft.), followed by several smaller bridges over branches of river, which here divides.
- 48 **Kazichane**, alt. 1,788 ft. Cross several streams.
- 54 $\frac{1}{2}$  **Novoseltse** station.
- 59 Cross the **Gabra** by Pobit Kamik viaduct (of iron, 3 spans, 170 yards long, 144 ft. high), alt. 2,226 ft. Line rises (gradient 1 in 40) on slopes of undulating plateau, almost uncultivated, and without vegetation. High retaining walls over Vakarel pass.
- 63 $\frac{1}{2}$  **Vakarel**, alt. 2,697 ft. Summit of line. Old frontier between Bulgaria and Eastern Roumelia.  
Line descends into Ikhtiman valley (gradient 1 in 40) crossing several small streams, and enters wide plateau.
- 74 **Ikhtiman** station, alt. 2,067 ft. Small town 1 $\frac{1}{4}$  miles E. by road. Steam mill at station.

miles

- 76½ **Stambolovo**, at edge of plateau. Line begins to ascend.
- 80 Line turns S., leaving road, ascends to summit of pass (alt. 2,654 ft.), and then descends wild and narrow Sulu gorge, with beech and oak woods (slopes of Kara Bair).
- 85 Line leaves gorge, reaches **Maritsa** valley, crosses **Ochusha**, and shortly afterwards Maritsa.
- 86 **Banya-Kostenets**, station alt. 2,001 ft., 4½ miles from small town which lies to SW.
- 88½ Line enters winding gorge of Maritsa, through which river and Samakov road also run, and descends.
- 92½ **Sestrimo** station, alt. 1,322 ft.
- 97½ **Gara Belyovo** station, alt. 1,024 ft., at E. end of gorge. Centre of Rhodope timber trade.  
Line runs E. by S. across plain of Maritsa, through low-lying swampy ground, mostly paddy-fields, crossing several streams.
- 103 **Sarambey** station, alt. 774 ft. Town (Saranyovo) 1¼ miles N. on Maritsa, to which there is a carriage road. Railway works for creosoting sleepers.  
Western limit of vine-cultivation.  
Line crosses numerous streams. Country becomes more fertile, with cornfields, vineyards, orchards. Many tumuli.
- 113½ **Tatar Bazarjik** station, alt. 669 ft. Town 2 miles distant on N. bank of Maritsa (bridge). There is a good carriage road from the station to the town.  
Line now follows r. bank of Maritsa, while main road follows l. bank.
- 124½ Line crosses the Vach and reaches **Krichim** station. Vineyards and paddy-fields.
- 128 Cross **Krichim** river, alt. 607 ft.
- 136 **Philippopolis** (Plovdiv) station, alt. 607 ft. 1 mile S. of centre of town. Branch line, starting by bridge

miles

over Maritsa, a short distance W. of station, to Stara Zagora and Burgas.

Line makes detour S., avoiding marshy land, and crosses **Stanimachitsa** river just outside Stanimaka station.

144 **Stanimaka** (Katunitsa) station, alt. 528 ft. ; 7 miles N. of town by good chaussée.

Line turns NW. and approaches river again.

148½ **Sadovo** (Cheshnegir) station. Line close to river just before Papazlii.

154½ **Papazlii**, alt. 459 ft.

General direction of line E. by S., closely following Maritsa.

164½ **Borisovgrad**, alt. 436 ft.

171½ **Skobelevo** station, alt. 371 ft., with road to Sofia-Adrianople road, 3¼ miles to SSW.

185 **Kayadzhik** station, alt. 331 ft., for Haskovo, 9 miles S. by W., to which there is a good carriage road.

The above stations are important for Dedeagach and Constantinople trade.

193½ Railway close to r. bank of Maritsa. Both run through a gorge. Hilly country : few trees.

198½ **Trnovo-Seimen** station at end of gorge, alt. 295 ft. Junction for branch line NNW. (bridge over Maritsa) up Azmak valley to Nova Zagora on Philippopolis-Burgas line. **Seimen** town on l. bank of Maritsa, over which there is a bridge carrying a carriage road to the town.

General direction changes to SSE.

200½ Enter another gorge.

204 Valley broadens between gently undulating hills.

208 **Harmanli** station, alt. 282 ft. Town 1¼ miles WNW. The station is on the Sofia-Adrianople road, which passes through the town.

218½ **Hebibchevo** (Lyubimets, Turk. Ebibj), alt. 240 ft. Military works on heights E. commanding the line.

miles

225

**Mustafa Pasha** station, alt. 207 ft. Three sidings, one of 500 and two of 400 yards. Town 3 miles ESE., across river (old stone bridge) along main road. Line takes general direction SE. down r. bank of **Maritsa**. It enters Thracian plain, which is fertile, but little cultivated, and crossed by low chains of hills.

235

**Kadiköi** station, alt. 148 ft. Two sidings of 400 yards each.

247

**Arda** river is crossed by bridge of four 150-ft. lattice girders on stone piers about 30 ft. above water-level.

248

**Karaagach** station, alt. 134 ft., for **Adrianople**, 3 miles NE. on farther bank of **Maritsa** and **Tunja**. There is a good carriage road to the town.

The station has 3,000 yards of sidings, an engine-house, small goods-shed, water-tank, and a small supply of coal. There is also a military loading platform E. of the station, 120 yards long, accommodating 15 wagons.

General direction of line S. Line runs along foot of hills on edge of valley, with road between it and river (average 2 miles distant).

263½

**Urla** station, alt. 92 ft. Two sidings of 350 yards each and an extra length of 800 yards W. of station.

270

**Kuleli Burgas**, alt. 79 ft. Junction of **Dedeagach** line (Route IX). The station contains nearly 2 miles of sidings, including a coal depôt with two sidings of 400 yards each, two of 600 yards each, and a big siding running W. for 900 yards to a dead end.

271½

Line turns ESE. and crosses the **Maritsa**.

There is a new bridge over the W. channel of the river of three 150-ft. spans of box-girder formation, 15 ft. square, through which the train passes, supported on masonry piers, the rails being 30 ft. above the summer height of the water. Fifty yards beyond is the bridge over the E. channel, consisting of 15 spans

miles

of 55-ft. lattice girders; height of rails from water, 25 ft. After a short earth embankment there is a third bridge consisting of five 80-ft. spans followed by six 30-ft. spans of lattice girders. The piers consist of iron piping about 18 in. in diameter, braced together with stays. For 200 yards above the bridge on the r. bank there is a retaining wall to check the rush of the current.

Line follows the valley SSE.

277

**Uzun Köprü** station, alt. 115 ft.,  $2\frac{1}{2}$  miles N. of town, in valley of Ergene, liable to floods, which in 1902 washed away the line. Two sidings of 400 yards each and a large goods-shed.

Line continues to **Constantinople**, 169 miles.

## ROUTE XII

GYUESHEVO—SOFIA,  $82\frac{1}{2}$  miles

miles

0

**Gyueshevo**, alt. about 3,084 ft. The station lies  $\frac{1}{4}$  mile S. of the main road from Egri Palanka to Kustendil and Sofia, and is about 8 miles from Egri Palanka. It is  $1\frac{1}{4}$  miles E. of the Serbo-Bulgarian frontier. It lies in a valley commanded by hills on W. and S. The continuation of the line to Kumanovo is reported under construction, but no details are available as to its alignment or present condition (1916).

The general direction is N. by E.

 $\frac{1}{2}$ 

Railway crosses road and proceeds along side of hills on E. side of the **Levnitsa**.

 $2\frac{1}{2}$ 

Line crosses hill NE. into valley of an affluent of the **Levnitsa**, and crosses the latter just above the confluence.

 $3\frac{1}{2}$ 

Line crosses **Levnitsa** and proceeds down hill on l. bank.



miles	
5	<b>Malanovska</b> (Dolnoselo) station.
6	Road and river enter gorge just below confluence of the Levnitsa with the Bistritsa. General direction turns to NE. Railway follows l. bank of river closely.
8½	Alt. 2,444 ft. on opposite bank of river.
10	Two tunnels. Direction changes to E.
11	Two tunnels.
12	Three tunnels.
14	<b>Mazarachevo</b> village. Line turns S. by E. and continues in this general direction to Kustendil, winding along lower slopes of hills on r. bank of Bistritsa, from which it gradually diverges.
20	<b>Kustendil</b> , alt. 1,722 ft. Station ¼ mile NW. of town. The line bends sharply to NE., and runs across the plain near l. bank of the Banska.
23½	Line crosses the <b>Bistritsa</b> .
25	Line passes through <b>Kopilavtsi</b> village on r. bank of Struma, and turns NNW. up r. bank of Struma, which is here in a narrow valley.
28	Cross the <b>Dragovishtitsa</b> , tributary of the Struma, ¼ mile above its confluence with that river.
28½	<b>Rajdavitsa</b> station. River and railway enter a gorge. There are numerous tunnels.
30	Bridge over <b>Struma</b> .
31¼	Railway recrosses to r. bank.
32	Recross to l. bank. General direction now N. by E. Line crosses and recrosses river again between this point and Belyovo.
37	<b>Belyovo</b> station, alt. 1,939 ft. at an opening in the gorge. Side valley running N. Railway and river bend to SE.
38½	Direction changes to NE.
40	<b>Zhablyano</b> village on r. bank. Bridge. Direction changes to E., but line does not cross river.
42½	River turns N., railway SE., leaving valley at

miles

**Kalishta** village. Railway ascends valley of a tributary of the Struma.

47 Railway crosses Kustendil–Radomir–Sofia road and runs NE.

47½ Alt. 2,080 ft. to r. of line.

49½ Line re-enters Struma valley on l. bank.

50 Line crosses road, alt. 2,064 ft., and proceeds in general N. direction between river and road.

53 **Radomir** station. Town 1 mile to NE., to which there is a carriage road. A light railway is said to be under construction from Radomir to Dupnitsa SE. No details available as to its alignment or present state (1916).

54 Bridge. Railway crosses to r. bank of **Struma**.

56½ Railway recrosses to l. bank.

58 Line turns ENE. and crosses Radomir–Bryeznik–Tsaribrod road.

58½ Line crosses to r. bank of **Struma**.

60 Line turns SE.

61½ Line recrosses to l. bank.

62½ **Pernik**, alt. about 2,300 ft. A short branch-line crosses the Struma (½ mile NE. of station, alt. 2,293 ft.), and bends round W. to coal mines on hills on r. bank of river. This line ends ¼ mile N. of Pernik across river. Total length, 1¼ miles. The main line turns E. up l. bank of Struma at foot of hills, accompanying the road closely.

66½ Line and road cross **Struma**, which here turns S., and proceed in general NE. direction. Alt. 2,378 ft.

68½ Railway crosses road. Alt. 2,441 ft.

69½ Railway crosses Sofia–Dupnitsa road.

70½ Railway recrosses road to Sofia.

71 Line recrosses road. **Vladaya** station, alt. 2,799 ft. Summit of line, on col between Lyulin Planina (alt. 4,051 ft.) and Vitosha Planina (7,497 ft.).

72 Railway recrosses road and closely accompanies

miles

it down the narrow valley of the Gradska. General direction NE.

74 $\frac{1}{4}$  Alt. 2,382 ft.

75 Railway leaves valley and turns N. by E. across low hills.

76 $\frac{1}{4}$  **Gornya Banya.**

77 $\frac{1}{2}$  Railway turns ENE.

79 $\frac{1}{2}$  Alt. 1,936 ft.

80 $\frac{1}{2}$  Railway crosses Sofia-Tsaribrod road 1 $\frac{1}{2}$  miles NW. from centre of Sofia town. Line bends E.

82 Railway joins main line from Nish.

82 $\frac{1}{2}$  **Sofia** station.

## GAZETTEER OF TOWNS AND PORTS

**ADRIANOPLE** (Turkish **Edirne**, Bulgarian **Odrin**), Turkey, capital of the *vilayet* of the same name; head-quarters of the 2nd Turkish Army Corps. A first-class fortress and the seat of Greek, Bulgarian, and Armenian bishops, a Jewish Rabbi, and a Turkish Grand-Mullah. Pop. about 81,000, of whom 3,000 are Mohammedan Turks, 23,200 Greek and Bulgarian Christians, 8,000 Spanish Jews, 6,000 Gregorian Armenians, 500 Catholics and Protestants, and 300-400 heathen gipsies. The Turkish population is declining.

*Situation.*—The town is situated on the main road and railway from Constantinople to Sofia and Belgrade, 137 miles from Constantinople by rail, and at the junction of the Tunja and Arda with the Maritsa. The Tunja runs in a semi-circle round the west side of the town. It is liable to floods in the spring. The Arda is a mountain stream subject to sudden freshets. The Maritsa runs through low-lying marshy country, which is liable to floods during the rainy season. The town is surrounded by low hills, 300-500 ft. high, on the NW., N., NE., and E. sides. Southward it faces the plains of the Maritsa. The hills are planted with vineyards, and carry a ring of forts. The valley, of light clay and gravel soil, has vegetable gardens and mulberry plantations.

*General Description.*—The central town contains some 15,000 houses, most of which are of two stories, built of wood and sun-dried bricks, often faced with planks. There are few stone or brick houses, except public buildings, some schools, a Greek college, a bank, a fire-tower, a theatre, barracks, hospitals (the military hospital has 1,000 beds), government and military offices, &c. The streets are mostly narrow, tortuous, and badly paved, but a few have been lately improved. The principal streets in the main town, in the suburb of Karaagach,

and the station road, are lighted by petroleum lamps with incandescent mantles giving a good light.

The most densely populated part is that lying round the Uch Sherifli mosque, in the centre. The **Kale** quarter, in the SW., has been rebuilt since 1905, when it was burnt down, and has comparatively broad streets, inhabited by Greeks and Armenians. The upper part of the town, above the Sultan Selim mosque, in the N., is exclusively Turkish. The **Kaik** quarter, in the NE., contains Bulgarians and Greeks. In these quarters most of the houses have gardens and court-yards. In the S. and SE. quarters are large open spaces, marshes, and cemeteries.

The suburbs of **Yilderim** and **Sarik Maidan**, on the right bank of the Tunja, connected with the main town by three stone and one wooden bridges, have a mixed population, mainly Christian. The suburb of **Kirechane**, on the left bank of the Maritsa below the main town, is mainly Bulgarian. **Karaagach**, on the farther bank of the Maritsa, SW. of the main town, with which it is connected by stone bridges over the Maritsa and Tunja, has a station on the Constantinople-Sofia-Belgrade railway, and is inhabited largely by railway employees, whose children attend a German school.

*Resources.*—Adrianople is the natural outlet for the trade of the Maritsa valley, and was once the centre of Thracian commerce. But the war of 1877–8, the setting up of a customs barrier between Turkey and Bulgaria in 1885 (since when two-thirds of its foreign trade have been directed to Philippopolis and Burgas), and the decline of the river traffic on the Maritsa (which is navigable up to this point in spring and winter) have impaired its economic position. It has still considerable importance as a silk-producing centre, and a good deal of raki and wine is made here; but local industries are practically confined to hand-work, and aim only at supplying local needs. The principal manufactures (besides silk) are leather, carpets, woollen goods, linen, and cotton. There is considerable trade in corn and hay from the Maritsa and Ergene valleys. The exports also include fruits, cotton, opium, rose-water, attar





of roses, wax, Turkey-red dye, silk cocoons, hides, and the best wine in Turkey.

The town has three steam flour-mills, and several petrol-motor and water-mills, besides tanneries, distilleries, and silk, wool, cotton, and carpet factories.

Wood and charcoal, though brought from a distance, and expensive, are generally used for fuel. Small quantities of coal are normally obtained from Chepköi (near Uzun Köprü), Pernik, and Cardiff.

There are some 150 bakeries in the town, according to a fairly recent estimate.

There are large slaughter-houses.

In years when export has been restricted, there are usually 800–1,100 tons of grain remaining in the hands of local merchants in February and March. When export is brisk, such reserves are exhausted earlier in the year.

*Water-supply.*—An ancient aqueduct brings water from a spring in the hills NE. Another built in 1890 brings water from Kavakli. The two meet, enter the town from the N., and flow into a reservoir in the E. quarter. This water is good and palatable, though rather hard. Wells are also sunk in barracks and private houses, and reach stagnant, bitter, and hard water, hardly fit even for washing purposes, at 25–50 ft. Most houses have rain-water cisterns. The river water is also much drunk.

In addition to country carts, there were in 1909, 100 phaetons, 300 other public carriages, and 800 carts, of which about 100 were in good condition, with good horses.

**ARGYROKASTRO** (*Ergirikastro*), southern Albania, about 10 miles (direct) from the Greek frontier; pop. 12,000; situated in a deep valley on the left bank of the Drin (Zrina), a tributary of the Voyusa. It is one of the chief centres of the Liab tribe of Tosk Albanians (mostly Mohammedans), and was once a place of some importance, with a castle (now in ruins) that barred the way up the valley. The town, which is built on three ridges, separated by deep ravines, consists mostly of large isolated fortified houses built of stone. The

inhabitants form the nobility of the district, and are the owners of the farms scattered over the plain. There are two Greek churches, several mosques, a manufacture of snuff, and a bazaar well furnished with Albanian arms, embroideries, and carpets.

**BERAT**, south-central Albania ; pop. 8,500 (given in 1900 as 15,000), stated in 1908 to be two-thirds Albanian and the remainder principally Greek : one-half Christian and one-half Moslem. Seat of an Orthodox bishop. It is situated at the foot of Tomor mountain, between the lofty castle rock and the mountain from which that rock is separated by the river Osum, along both banks of which the town extends. The valley is fertile, producing wine, olive-oil, fruit, and grain, but the river has done great damage by flooding, and leaves in summer stagnant pools which breed fever-bearing mosquitoes. The houses are piled one above another on steep ledges of rock ; above the town is the citadel, which has no water-supply excepting a cistern and is of no military value. The river is generally unfordable, but is crossed by a good stone bridge, and there are said to be at least seven ferries, only one taking carts, the rest 4 or 5 people only.

**DEDEAGACH**, south-eastern Bulgaria, on the coast of the Aegean Sea ; pop. 3,000–4,000. A port of considerable strategical importance, belonging to Bulgaria since the Peace of Bucharest. The streets are wide, and there is a metalled road leading to the boat harbour and the railway stations. The town is healthy, though the swamps at the mouth of the Maritsa to the E. are malarious. The water-supply is from a spring, from a small reservoir NW. of the town, and from wells, and is rather scanty in summer ; but a fairly plentiful supply in winter is to be found in the Bodoma stream from the hills to the N. There is a steam flour-mill and petroleum stores ; the barracks are near the shore, west of the town. The port is an open roadstead ; water is shallow in-shore, and vessels have to anchor from  $\frac{1}{2}$  to 1 mile out, and discharge into lighters. Northerly gales are prevalent. The anchorage is unsheltered from southerly winds, which are sometimes so



violent as to prevent communication with the shore. The boat harbour is protected (except from SE.) by a concrete wall 138 yards long and 95 yards wide. There is a crane to lift about 2 tons. West of the harbour is a lighthouse. On the quay are some iron sheds for storing grain (the chief export) ; railway sidings run to the sheds and along the quay, but the space is very cramped. At the extreme E., along the beach, are nine short jetties of trestles of iron rails with wood plank-ing, used for loading lighters in fine weather ; this part of the beach is protected from the sea by a wall of masonry 12 feet high.

The Salonica-Dedeagach railway line here joins the Dedeagach-Adrianople railway. The station of the former is to the W. of the town, and 400 yards from the sea. The other station is 1 mile E. of the town. The two stations are connected by a loop-line (single).

The ground for some 2 miles to the N. of the town is gravelly, dotted with large trees, and suitable for camping.

**DELVINO**, southern Albania, about 8 miles (direct) from the Greek frontier ; pop. 3,300, Greek-speaking Albanians. A decayed town on sloping hills in an opening of the high ridge of Ergenik, which rises above the town. Ravines, spanned by old bridges of a single arch, with groves of olives, oranges, and vineyards, are interspersed among the one-story brick houses, which are situated at some distance from each other, in consequence of family feuds. A ruined castle crowns a conical rock, beneath which is the bazaar. There are several small mosques and one church.

**DEMIR HISAR**, Greece (eastern Macedonia) ; pop. 8,000-13,000. Situated on a hill  $2\frac{1}{2}$  miles SE. of its station on the line from Salonica to Seres, with a citadel and five mosques.

**DEMOTIKA**, south-eastern Bulgaria, close to the Turkish frontier ; pop. 8,000-10,000 (2,200 houses), mostly Moham-medans. Built in an amphitheatre on the left bank of the Kizil Deli Su, a large mountain stream flowing from the west, at the base of hills crowned by a ruined castle where Charles XII of Sweden was imprisoned (1713-14). Much

silk is produced, and also pottery. There is a cavalry barracks for two regiments, the usual garrison during the Turkish régime. The station lies about a mile E. of the town, connected by a chaussée. It has three sidings of 400 yards each, and a small goods station with a loading platform. The hills commanding the town and several positions between it and the former Bulgarian frontier W. are reported to have been entrenched by the Turks. Demotika was ceded to Bulgaria in 1914. In addition to roads to Ortaköi, and across the Maritsa by an iron girder bridge, there are cart-tracks NW. across low hills into the Arda valley: they are important as turning Adrianople on the S.

**DIBRA** (*Debra* ; *Divra*), a Serbian-Albanian frontier town ; pop. 10,000–12,000,  $2\frac{1}{2}$  miles from the right bank of the Black Drin ; inhabited by Albanians and Bulgars (Mohammedans and Christians), notorious for their insubordination. It produces leather goods and steel, and is the seat of a Greek bishop. There are mineral baths. The large barracks is the most conspicuous building. Dibra is the key of the upper Drin valley.

**DOIRAN** (*Polyanis*), on Greco-Serbian frontier ; pop. 8,000, mostly Turkish and Greek. Situated on the SW. side of the circular lake of Doiran, which is celebrated for the abundance of its fish. It stands on the slopes of a hill overlooking the lake, in a very fertile district. The inhabitants are mostly occupied in agriculture or fishing. There is a railway station on the line from Salonica to Dedeagach, connected with the town by a short chaussée.

**DRAMA**, Greece (eastern Macedonia) ; pop. 12,500 (6,000 Mohammedans, 4,000 Greeks, 1,500 Jews, 1,000 Gipsies). The town is the centre of an important trade in tobacco. It stands at the foot of the Boz Dag, on a rapid stream. To the S. is a cultivated plain which extends as far as the Bereketli marshes. There is much malaria. The Mohammedan inhabitants are very fanatical. Drama is the seat of a Greek archbishop, and possesses good schools and cotton mills. The railway station, on the Salonica–Dedeagach line,



is a mile SSE. of the town, with which it is connected by a metalled road which crosses the wide shingly bed of the Drama Su by a wooden trestle bridge.

**EGRI PALANKA**, Serbia, about 13 miles (direct) from the Bulgarian frontier; pop. about 6,000 (500 houses), half Mohammedans and half Bulgars, but the Turkish inhabitants have mostly migrated. The town is picturesquely situated on an amphitheatre of hills in the defile of the Kriva river at a point where the bottom of the valley is a few hundred yards wide; the surrounding hills are steep and mostly covered with low scrub. A good stream of excellent water flows through the centre of the town, which is unusually clean and healthy. The place has no defensive value, but was important strategically as a base of operations against the Bulgarian frontier in the Serbo-Bulgarian war of 1913.

**ELASSONA**, Greece (Thessaly); pop. 4,000 (Christians and Mohammedans). The town lies on the edge of a plain, on the western slopes of Olympus. It is divided into two parts by a rapid stream, and is connected by a stone bridge of a single arch with the large monastery of the Panagia, a square building with a cupola. The height on which the monastery stands is defended on either side by a deep ravine; in the eastern flows the Elassonitikos, in the western a tributary of it proceeding from the hills to the N. The town is situated at the junction of several roads and has always been of importance as a convenient centre for the surveillance of the neighbouring districts.

**FLORINA** (Bulg. *Leren*), Greece, near the Serbian frontier S. of Monastir; pop. (1906) 11,000, mostly Bulgars and Greeks. An important town, the seat of a Greek archbishop, situated on the S. edge of the Monastir plain, at the mouth of a side valley in the Peristeri range, the entrance of the pass to Kastoria. It was formerly protected by a citadel, now in ruins. The Florina railway station on the Salonica-Monastir line is  $2\frac{1}{2}$  miles E. of the town, with which it is connected by a good chaussée. There is a small cavalry barrack at the station.

**GEVGELI**, Serbia, close to the Greek frontier ; pop. 5,000. A prosperous town on the right bank of the Vardar, which is crossed by an iron road-bridge, above the Chingane gorge. To the E. lies open hilly country and to the W. the steep rugged hills of the Moglena. The town is half a mile from its station on the Salonica-Üsküb line, with which it is connected by a good chaussée. It is surrounded by extensive gardens and vineyards, and has a considerable industry in charcoal and silkworms.

**GUMULJINA**, southern Bulgaria ; pop. (1909) about 12,000, including 1,500 Turkish, 500 Greek, and 50 Bulgarian families, besides a few Jews and Armenians. A town on the Salonica-Dedeagach railway, connected by road with Xanthi and with the Aegean ports of Dedeagach and Porto Lagos. It is the starting-point of the important S. to N. route by Kirjali through the Rhodope to Haskovo, and also NE. to Adrianople. The town is situated in a fertile plain which is cultivated for maize, corn, and tobacco. It is irregularly built along the banks of the Karaja Su and other streams, which are usually dry, but are bridged for foot passengers in wet weather. The houses are surrounded by gardens and orchards. Drinking water is obtained chiefly from wells, and is fairly good. The site of the town is rather malarial.

The railway station (on the Salonica-Dedeagach line) is  $\frac{1}{2}$  mile S. of the town, with which it is connected by a good chaussée.

A considerable trade in local products is carried on with the hill districts to the N., and Gumuljina is a good centre for purchasing mules. Fairs are held in March. There is a steam flour-mill in the town.

**HASKOVO**, Bulgaria ; pop. 14,928. Picturesquely situated on the Haskeve Dere, a small tributary of the Maritsa, on the N. slope of the eastern Rhodope mountains, 9 miles S. by W. of the station of Kayadzhik, on the line from Philippopolis to Adrianople, with which it is connected by a road. It trades in tobacco and grain and has coal mines and sulphur baths.

**ISHTIB** (Štip, Shtiplie), Serbia, pop. 14,000, <sup>3</sup> mostly

Macedonian Slavs and Turks ; an important road-centre and commercial town situated on the left bank of the Bregalnica at a point 20 miles NE. of its junction with the Vardar. Opium and wheat are largely cultivated in the vicinity. Not far from the town are hot mineral-water springs. Ishtib is the most important military centre of central Macedonia. The barracks are a short distance outside the town, on rising ground. The town is enclosed by bare undulating hills with some cultivation, and is connected with the railway at Krivolak by a road which crosses the Vardar by an iron bridge ; there is also connexion by a good road through a flat country with the railway at Veles.

**JUMA'-I-BALA** (Jumaya), western Bulgaria. A Moham-medan town. Flax and tobacco are cultivated. There are hot springs. Juma'-i-Bala is important strategically as the meeting-point of the main routes from S. to N. (i) *via* the Struma valley, (ii) *via* the Myesta valley. There is also a route of considerable military importance to Ishtib, *via* Carevo.

**KALABAKA**, Greece (Thessaly) ; pop. 2,330. The terminus of the railway from Volo. The small town stands on the upper part of a long slope covered with mulberry-trees, at the SE. foot of a precipice, 500-600 ft. high, through a deep fissure in which a narrow path leads to the village of Kashaki and the monasteries of Meteora. There is a third precipitous summit to the eastward, crowned by the monastery of Hagios Stefanos. Kalabaka is nearly a mile from the left bank of the river Salamvria, which here enters the plain of Thessaly. It commands the eastern end of the Metzovo (Zygos) pass, but is without military defences. It is the seat of a bishop ; the cathedral, built about A.D. 1300 by the Emperor Andronicus Palaeologus, is one of the oldest churches in Greece.

**KARDITZA**, Greece ; pop. 9,450. A thriving town on the small river Karditzis,  $\frac{3}{4}$  mile N. of its station on the line from Volo to Kalabaka. It is situated on a marshy plain among groves of cypresses, cotton-trees, and fields of tobacco. Since its annexation to Greece new quarters have been built, with

streets bordered by arcades. It has a considerable trade in corn, cotton, and tobacco, and is an important commercial centre for the western plain of Thessaly and the hills of Agrapha.

**KASTORIA** (Turk. **Kesrie**), Greece, about 12 miles (direct) from the Albanian frontier; pop. about 10,000; with (1906) some 2,000 houses, of which 1,200 are Greek, 250 Jewish, 200 Turkish, and the rest Albanian, Vlach, and Bulgar. The town, which has a fringe of gardens, is built on a high rocky promontory jutting out from the western shore of the lake of Kastoria. A Byzantine wall with round towers and a wet ditch runs across the promontory.

A colony of Jews from Salonica settled here a century ago, and the town gained considerable commercial importance, which it has since lost, though there is still a good deal of trade, especially in furs. Kastoria is the seat of a Greek bishop, but the Christians of the villages in the plain are mostly Bulgar and Albanian shepherds: the Turkish beys of the plain had little influence.

The lake of Kastoria lies at an altitude of 2,047 ft., in a deep hollow surrounded by limestone mountains. It is oval in shape and measures about  $4 \times 3$  miles, and is from 25 to 50 ft. deep. It is drained by a tributary of the Vistritza. The water is stagnant and putrescent at the edge, but when cooled in jars is said to be not disagreeable and is preferred for drinking to the water of wells and of some springs at the foot of the hills. The fisheries are important.

**KAVALLA**, Greece (eastern Macedonia, on the Aegean Sea); pop. 20,000–24,000, of whom 12,000 are Greeks and 10,000 Turks. The old town (Mohammedan quarter) is built on a rocky spur jutting out into the Gulf of Kavalla. It is surrounded by well-preserved walls of the sixteenth century, and is well supplied with water brought from the north by a mediaeval aqueduct; at the top of the town is a ruinous fortress. New Kavalla stands on the slopes along the beach: the houses are mostly of stone, and modern. There is a short mole and a landing-place for boats in the centre of



the town, about  $\frac{1}{2}$  mile N. of the lighthouse point. The harbour is exposed, especially to southerly or south-westerly winds. There are spirit-stills and soap factories, but the chief industry of the town is that of tobacco. The tobacco is brought by road on primitive buffalo-carts, and manipulated by thousands of peasants from the neighbourhood and from Thasos in the long, unpaved, unceiled stores of the tobacco merchants. The mosque of Ibrahim Pasha (d. 1536) was formerly the church of St. Lazarus. There is an important Mohammedan school, richly endowed by Mohammed Ali of Egypt, who was born at Kavalla.

**KORITZA** (Turk. *Gurije*), south-eastern Albania. Pop. 10,000, principally Albanians and Vlachs and a few Bulgars. In 1903 about one-third were Mohammedans. The town is situated at the end of a fertile plain trending northwards to Lake Malik, which is drained by the river Devoli. There are granite and limestone quarries, and an inferior quality of coal is found in the hills around. The town is healthy and has a good water-supply.

**KRUŠEVO**, Serbia. A thriving town to the N. of Monastir. It suffered severely during the disturbances of 1903, when it was sacked and partly burnt. Of the inhabitants, the Vlachs (6,500) are the richest leading merchants; there are also Bulgarians and Turks. Kruševo has 12 churches, a ruined citadel, and several smithies and tallow-refineries.

**KUMANOVO**, Serbia; pop. 6,000–10,000, mostly Turks. A small town, situated in an open cultivated basin, dominated by high ground on all sides. The station (on the Üsküb–Nish railway) is 2 miles W. of the town and connected with it by a good chaussée. There are a few two-storied houses of modern type containing the administrative offices and the Serbian and Bulgarian schools, the remainder being poorly built dwellings. The inhabitants are wheat growers and graziers.

**KUSTENDIL**, western Bulgaria, near the Serbian frontier. Capital of a department of the same name; seat of a Greek archbishop; customs station and garrison town; pop. (1910) 13,748



(including a few Turks and Spanish Jews). Situated on the south side of a basin in mountainous country on a small affluent of the Struma. It has narrow uneven streets, and houses mostly of clay and wood. Its red roofs and white minarets amid vineyards and terraced gardens on the slopes of Mt. Osogov are picturesque and characteristic. There is a fine view of the town from the overhanging Hisarlik, on which is a fortress. Kustendil is chiefly notable for its hot sulphur springs with bathing establishments. Small quantities of gold and silver are obtained from the neighbouring mines. Vines, plums, and tobacco are much cultivated. Leather industry.

**LAMIA** (Turk. *Zitouni*), Greece; pop. 5,820. The town is of moderate size, standing on the lowest slopes of two spurs of the S. side of Mt. Othrys. It is connected by a short branch line with the railway running from Athens through N. Greece to Salonica. It is also connected with Hagia Marina and Styli or Styliida, two small ports at the head of the Malian gulf, by a short railway. There is a quay at the head of the gulf and a wharf with steam cranes at Hagia Marina. The Malian plain S. of Lamia is very fertile.

The streets of Lamia are tolerably regular: it is the seat of an archbishop, and has an important yearly fair. The chief trade is in tobacco, rice, and oil. Camels are bred here. The E. hill is crowned by a mediaeval citadel, built on ancient foundations: it contains barracks and a powder magazine. The water-supply is good.

The strategical importance of the place is very considerable, commanding the road leading W. to the Phourka pass, the main artery of traffic between Thessaly and Greece.

**LARISSA** (Turk. *Yenishehr*, 'new town'), Greece. The most important town in Thessaly, centre of road and railway systems. Pop. 18,132, including 2,000 Spanish Jews. It is the capital of a Greek province, the seat of a nomarch and a Greek archbishop, with an energetic and increasing Greek commercial population. There are distinct Turkish, Jewish, and Greek quarters, overlapping near the bazaar. On the

outskirts of the town is a village of Sudanese Africans, a relic of Ali Pasha's forces. Larissa is situated in the centre of a large and fertile plain, on the r. bank of the broad and rapid Salamvria (ancient Peneus, well stocked with fish), which here turns from E. to N., and is crossed by a bridge of 9 arches, with a roadway wide enough for two carriages. The town is about 35 miles NW. of Volo, with which it is connected by rail. It retains its Oriental character, and has 7 churches, 26 mosques (only 3 in use), 4 synagogues, school, court of appeal, and houses built round courts and arcades with blank walls to streets. On a hill to the N. are the remains of the ancient Acropolis with the Metropolitan church and school.

The town, though well ventilated by cooling winds from Mt. Olympus on N. and Mt. Ossa on NE., is subject to excessive heat in the summer; it is nevertheless considered healthier than most parts of Thessaly. But fevers and agues are prevalent owing to bad drainage and floods, especially in the autumn. The death-rate exceeds birth-rate. Owing to its natural situation, Larissa has always been the principal trading centre of the whole country. There are vineyards, cotton factories, dye works, silk factories, tobacco factories, &c.

Larissa is important as the greatest road-centre E. of Pindus and S. of Salonica. From the military point of view the position of the town only offers in respect to natural advantages for defence: (i) that the Salamvria (Peneus) river, which is deep in the winter season, covers it on the N.; (ii) that the plain to the SE. is liable to extensive flooding at the same season.

**MELNIK**, south-western Bulgaria; pop. 5,500 (mostly Greek). A town on a small eastern tributary of the Struma. It is the seat of a Greek archbishop.

**MONASTIR**, southern Serbia; pop. 50,000, composed in 1912 of Mohammedan Slavs, Kutzo-Vlachs, Serbs, Jews, Turks, Bulgarians, Albanians, and Greeks. Finely situated on both sides of the Dragor, at the mouth of a ravine in the Peristeri range, which hills rise very steeply from the plain,

attaining 7,500 ft. Next to Salonica, this is the most important place in Macedonia. The town is not fortified, and the neighbourhood offers no suitable position for defence. It is of considerable strategic importance, being situated at the meeting places of routes from Veles *via* Prilip, from Tetovo *via* Krčova, from Yanina *via* Koritza, from Durazzo, &c., *via* Ochrida, and from the Greek frontier. The Monastir plain is marshy but fertile, and affords a good base of supplies; there is good pasturage. The town possesses several large public buildings, a barracks, Lazarist and American Protestant missions, and is the seat of a Greek archbishop. Owing to its situation it is a very active trading centre. Monastir contains, in ordinary times, a wonderful variety of races, each having its separate colony and conducting its own national and religious propaganda. The streets are wide but very badly made. The houses, mostly one story high, are solidly built in a mixed Oriental and Western style. The river has quays and promenades, and is crossed by stone bridges. Monastir has a tannery and a ribbon factory; stocking and carpet making are home industries; its silver filigree work is famous. In contrast to the craftsmen of Dibra, Ochrida, &c., who are accustomed to travel about the country, those of Monastir remain in the city. Wheat, maize, tobacco, and madder are grown in the neighbourhood. The plain of Monastir is exposed to great changes of temperature; as a consequence diseases of the chest are very common.

**METZOVO**, Greece; pop. 8,000–9,000, mostly Vlachs. A small town, divided into two portions by a ravine, on the Greek frontier, of importance as commanding the entrance to the Metzovo (Zygos) pass, leading to Trikkala (Thessaly), and to the passes leading northwards towards Grevena.

**NEVROKOP**, south-western Bulgaria; pop. 8,000, Bulgarians and Turks. The principal town of the hilly country along the upper Mesta, lying in a fertile basin draining eastwards to that river. It was formerly the principal military centre on the Turco-Bulgarian frontier.

**NYAOSTA (Agostos)**, Greece; pop. 11,000, nearly all Greeks.

The town is situated  $4\frac{1}{2}$  miles NW. from the station (Salonica-Monastir railway), with which it is connected by a good road, surmounting the steepest gradients by zigzags. It is built on a plateau overlooking the Rumluki or Yenije Vardar plains. It is well supplied with water, streams running through most of the streets. The vineyards on the hills in the neighbourhood produce a strong red wine. There are three cotton-spinning mills, five churches, a mosque, and three Greek schools with over 700 pupils.

**OCHRIDA** (Achrida, Ochri), south-western Serbia; pop. 10,000-15,000, nearly evenly divided between Christians (Bulgars, with a few Greeks and Vlachs), and Mohammedans (various races). The town is picturesquely situated on the NE. shore of the lake of the same name, in a small alluvial plain surrounded by hills. It is built on a double line of rocks projecting southwards from the main range, and is surrounded by a belt of gardens and orchards. On one summit are the palace of the Bulgarian bishop and the cathedral of St. Clement, on the other is the ruined citadel, with its square enceinte, bastions, and towers. The bazaars are in the N. part of the town along the main road to Monastir; the Christian (Bulgarian) quarter is on the southern face of the rock, overlooking the lake. The climate is fresh and healthy, and good supplies, especially of flour, are reported to be available (1914). The principal industries are tanning, fishing, agriculture, and trade in furs. The lake of Ochrida lies at an altitude of 2,264 ft.; it is 25 miles long and  $9\frac{1}{2}$  miles wide, and has an extreme depth of 938 ft. It is drained at the N. end by the Black Drin. It is renowned for its excellent fish, especially trout. In 1914 there were 30 large rowing-boats which plied between Ochrida and Pogradets and could carry a wagon or motor, horses, &c. The boats in use are flat bottomed, made of a dozen pieces, 18-20 ft. long, narrow with rising bow and broadening towards the stern. A heavy log is fixed alongside on each side. Four rowers on port side (three in bows and one in stern) and the steersman with an oar on starboard side of the stern.



**PARGA**, Greece (Epirus) ; pop. 3,000–5,000. A small seaport on the coast of the mainland S. of Corfu, built on a rocky height, 260 ft. high, with an old citadel now in ruins. The streets are narrow and dirty. The neighbourhood is fertile and rich in orchards.

The little port is divided into two parts by a point, on which the old citadel stands. The western (larger) portion is about 3 cables each way, with 6–7 fathoms in the middle ; it opens southward. The other is the port now used, but only for small vessels. It is protected by a chain of islets running SW. Anchorage 5–8 fathoms. Dangerous in winter because exposed to the dangerous S. wind of this season. Other anchorages in the vicinity are :—

**Port San Giovanni**, 5 miles E. of Parga, a sheltered harbour 7 cables N. and S. by 5 E. and W., with a narrow mouth opening S. Good water half-way up the eastern shore, near a patch of cultivated ground. Track up and down coast on the hills. Best harbour on this particular stretch of coast.

**Port Phanari**, 6 miles SE. of Parga, a circular lagoon at the mouth of the Gliki river. Narrow mouth between rocky points, exposed to SW. winds. Much of the port is silted up by alluvium from the river. Ground marshy to eastward ; coast-track runs N. and S., and roads up the valley.

**PHILIPPOLIS** (Bulg. **Plovdiv**, Turk. **Felibe**), capital of the Bulgarian department of the same name, the headquarters of a brigade, the seat of Bulgarian, Greek, and Catholic bishops, and the strategical and commercial centre of the Maritza plain. Pop. (1910) 47,981, of whom two-fifths were Bulgarians, one-sixth Turks, one-eighth Greeks, Jews, Armenians, and Gipsies. There is a community of 3,000 Bulgarian Catholics living together in the Pavlikano quarter.

*Situation.*—The town is situated on the main road and railway from Sofia to Adrianople, 96 miles ESE. of Sofia and 97 miles WNW. of Adrianople, at the junction of the important commercial railway route *via* Stara Zagora to Burgas on the Black Sea coast. It stands on the right bank of the river



Maritsa, among a group of seven conspicuous granite hills, of which three are included in the town.

*Description.*—The town is mainly composed of wooden houses, but a number of buildings in European style have been erected, and there are many broad and well-paved streets with good shops. There is a modern quarter, with villas and gardens, towards the station. The residences of the richer Greeks and Bulgarians are chiefly on the N. side of the Jambaz Tepe, the highest of the three hills within the circuit of the town. There is a new royal palace on the Bunari Tepe, a clock-tower and park on the Sahub Tepe. Near the Maritsa is a public park made by the Russians in 1877. There are also some 26 mosques, 13 churches, many schools, a public library, a hospital, a museum, a court-house, a new Greek cathedral, banks, consulates, and hotels.

*Resources.*—The chief exports are rice, attar of roses, and silk cocoons; also wheat, wine, tobacco, alcohol, and hides. The trade is mainly in the hands of Bulgarians, Armenians, and Spanish Jews. There are silk, cloth, and albumin factories, distilleries, &c.

**PORTO LAGOS** (Turk. Karaagach), Bulgaria; pop. 110. A small port at the head of the bay of the same name, situated on the shore of a lagoon opening into the large marshy lake of Boru. It consists of about 12 Greek houses, with 2 small hotels. Porto Lagos is the place of export for the important tobacco, wool, and cereal products of the districts of Xanthi, Gumuljina, &c. It contains a customs-house, quarantine station, telegraph and post office, and stores. Small sailing barges can unload at the quay opposite the customs-house. The quay is of stone, about 100 yards long.

**PREVESA**, Greece (Epirus); pop. 8,000 (mostly Greeks). Situated at the entrance of the gulf of Arta, the chief port of Epirus, with 11 churches, 2 mosques, post and telegraph office, and trade in wool, skins, oil, &c. The town is built at the end of a promontory, just inside the narrow strait forming the entrance to the gulf and sheltered from N. and E. winds. Prevesa is surrounded by olive-gardens; ague

# PHILIPPOPOLIS

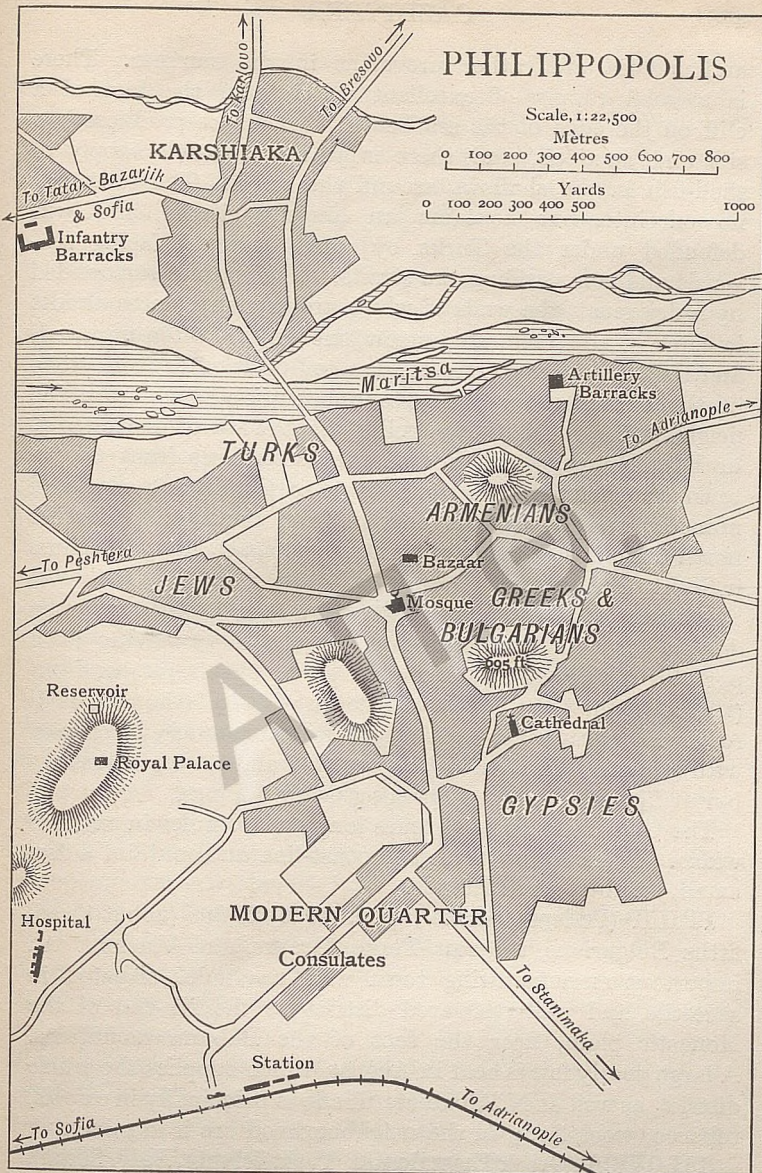
Scale, 1:22,500

Mètres

0 100 200 300 400 500 600 700 800

Yards

0 100 200 300 400 500 1000



and malaria are rather prevalent in the summer. There is a good supply of excellent water from the foot of a cliff on the edge of the sea beach. The place produces raw silk and good oil, and there is an inexhaustible supply of shell-fish in the shallows around the strait. The town has no enceinte, but contains an ancient citadel, and was defended under the Turks by coast batteries facing seawards and commanding the straits. The town is surrounded by a dry moat, the walls of which are in many places almost in ruins. The streets are narrow, uneven, and often unpaved, and the houses are chiefly constructed of wood or from stone in the Turkish style, the stone being obtained from the neighbouring ruins of Nicopolis. Southward of the citadel, or Fort Nuovo, which lies on the eastern sea front of the town, the houses come right down to the water's edge and numerous narrow streets lead in from the shore. Further north there is a certain amount of open space along the shore in front of the town.

Prevesa is frequently visited by small steamers, and does a considerable coasting-trade, as well as serving as a port for Yanina, Arta, &c. The anchorage is just in front (i. e. E.) of the town. It has a depth of 7-10 fathoms. It is reached across a wide and flat bar, which can only be crossed with a pilot. A current is frequently found setting across the bar at  $2\frac{3}{4}$  miles an hour, changing every 6 hours.

The Gulf of Arta is  $18\frac{1}{2}$  miles long and 10 miles in extreme width. It has a low, irregular coast-line and contains a few small, scrub-covered islands.

**PRILIP (Perlepe)**, Serbia ; pop. (1915) 20,000 (about three-fifths Bulgarians, the rest Turks, Greeks, and Vlachs). An important manufacturing town with a citadel, situated in a fertile and well-cultivated district at the N. end of the Monastir plain, near the foot of the Babuna mountains. A large yearly fair is held in August, which supplies the whole district, as well as N. Albania. Trade is principally in cereals, tobacco, wool, &c. ; in the neighbourhood are iron mines.

**SALONICA** (Greek *Thessaloniki*, Turk. *Selanik*, Bulg. *Solun*),



the principal town in Macedonia, with the best harbour, and the natural starting-point for road and railway routes NW., N., and NE. Since the expulsion of the Bulgarians in July 1913 it has been the Greek administrative and military centre for the new north-eastern territory acquired as the result of the last Balkan war. It is the seat of an orthodox Greek archbishop. Pop. about 170,000.

*Situation.*—Salonica is situated in  $40^{\circ} 37' \text{ N.}$ ,  $22^{\circ} 57' \text{ E.}$  It is built in the form of an amphitheatre, and extends up the steep side of a hill about 450 ft. high, a spur of Mt. Hortach Dag, at the head of the Gulf of Salonica, which is enclosed on the W. by the alluvial delta of the Vardar, and on the E. by Cape Karaburun. The town is surrounded by old Byzantine walls, which run down W. to the fort and military dépôt, and E. to the prominent Beyas Kule (white tower) on the quay, used as a prison and barracks. There is an old citadel on the top of the hill. There is a NE. suburb, the development of which is hindered by the unhealthiness of the locality. E. and SE. lies the older suburb of Kalamaria, containing many fine villas belonging to the richer inhabitants.

*General Description.*—The Turkish quarter, with its narrow, roughly paved, but clean streets, is in the upper town, on the steep slope leading to the old citadel. The lower town is inhabited by Jews. Here, in the low-lying part along the quay front, is the business quarter, with the shops and bazaars, where in the export season such activity goes on that it is sometimes difficult to get sufficient labour. The Greek quarter is in the SE., the most ancient part of the town.

The principal streets are: (i) the sea front, composed, from W. to E., of Rue Amiral Condouriotis, Avenue de la Victoire, Avenue Georges I, Avenue Reine Olga; (ii) parallel to the sea front, Rue Egnatia, which runs straight across the town from the Vardar Gate (WSW.), to the Calamaria Gate and Roman Arch of Gallerius (ENE.); (iii) Rue St. Démètre, parallel to the last, but further from the quay. Also, immediately behind the quay, Rue Bulgaroktonos and Rue Tchinski; and (running up-town from the sea front)

Rue du 26 Octobre, Rue Venizélos, Rue Reine Sophie, Avenue Roi Constantin.

There are four public *places*—Place de la Liberté, Place du Roi Constantin, Place Sainte Sophie, and Place Hippodrome.

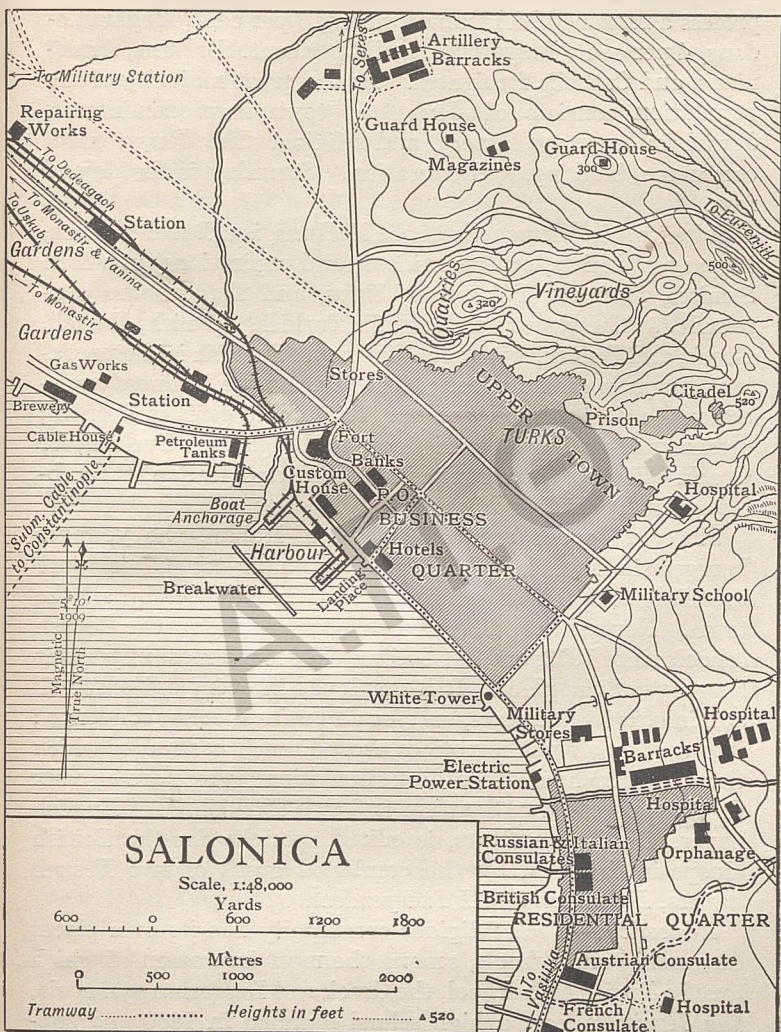
The business quarter, with the theatres, hotels, and cafés, is between Rue Egnatia and the quay. The government offices are to the N. of this street. The foreign consulates (there are normally consuls-general for all the Great Powers, as well as representatives of Serbia and Bulgaria) are nearly all in Avenues Georges I and Reine Olga, in the suburb of Kalamaria. The offices of the various steamship companies are on the quay. The railway stations—one for the Monastir-Üsküb line, one for the Dedeagach line, and a military station serving both—are at the W. end of the town. The Monastir-Üsküb station is connected with Kalamaria by an electric tramway which crosses the town by Rue Egnatia, and then turns to the White Tower, where it joins another line from the Custom-House along the sea front to Kalamaria. There is also a junction line between Rue Egnatia and the quay *via* Rue Venizélos. The city is lighted by gas as well as electricity.

In the commercial quarter of the town the streets are broad and straight, and paved with lava. There are some well-built churches, mosques, synagogues, and modern buildings; but the older houses are fragile wooden structures, coated with lime or mud, and the sanitation of the town is defective. There are plenty of elms, cypresses, and mulberry trees among the houses.

*Climate and Water Supply.*—The climate of Salonica is not good. The neighbouring marshes breed clouds of malarial mosquitoes, which are dangerous to those who are not inured to fever. The water supply is provided by the Compagnie des Eaux de Salonique, and is satisfactory.

*Population.*—The population of Salonica has increased threefold in less than fifty years. In 1865 it numbered less than 50,000; in 1880 it was 90,000, in 1895 it had grown to 150,000, and in 1914 it reached a total of about 170,000. Of this number, 56 per cent. are Jews, 18 per cent. Greeks,





Emery Walker Ltd. sc.

11 per cent. Deunmehs (a Jewish sect who speak Turkish and profess a reformed Mohammedanism), 9 per cent. Mohammedans, 4 per cent. Bulgarians, and 2 per cent. Serbians, Armenians, and Catholic foreigners. As the great majority of the population consists of Jews, the town is predominantly Jewish in language, aspect, and religion. The Jews control commerce, banking, and education. Saturday is the day of rest.

Salonica, the metropolis of the Balkans, is a Babel of races, languages, beliefs, customs, ideas, and aspirations, in which Semites, Mongols, Pelasgians, Slavs, and Teutons are confounded. The street vendors talk Turkish, Spanish, French, Greek, and Italian, with equal fluency. Spanish is the prevalent language of the slums ; that of the large business transactions, the big shops, and the fashionable cafés is French ; ordinary shopping is carried on in Bulgarian, Turkish, or Greek. The boatmen swear in English and Italian, the cab-drivers in Turkish and Spanish.

The old Jewish aristocracy speak Italian, the younger bourgeoisie French ; but their common tongue is pure Castilian, and this is talked, as best it may be, by all the town. Nevertheless French has been taught in the Jewish schools since 1873, and has become the second most important language of the place. It is employed in every office, for all administrative purposes, and for all business correspondence ; it is used in all public notices, &c. French papers (of which there are six) have the widest circulation ; there are also six Greek papers, seven Spanish, and two Turkish. An English paper, the *Balkan News*, is edited specially for the British troops in Salonica, by the combined staffs of two French papers, *L'Opinion* and *L'Indépendent*.

*Education.*—Each religious community has its own places of worship and schools, among the most important of which are the Jewish high school, the Greek and Bulgarian gymnasia, the Jesuit College, a high school founded in 1860 and supported by the Jewish Mission of the Established Church of Scotland, a German school dating from 1887, and a college for

boys and a secondary school for girls managed by the French Mission Laïque, and subsidized by the French Government.

*Resources.*—Salonica is the principal Aegean seaport of the Balkan peninsula, the centre of the import trade of all Macedonia and two-thirds of Albania, and the natural port of shipment for the products of an even larger area. The new harbour, which was opened to navigation in 1901, allows the direct transshipment of all merchandise, whatever may be the direction of the wind. The average number of ships, including small coasters, which entered the port in each of the three years 1905–7 was 3,400, of 930,000 tons.

Salonica exports grain, flour, bran, silk cocoons, chrome, manganese, iron, hides and skins, cattle and sheep, wood, eggs, opium, tobacco, and fennel. The imports consist mainly of textiles, iron goods, sugar, tobacco, flour, coffee, and chemicals. The value of export trade tended to decrease in the first decade of the present century. The making of morocco leather and other leather-work, such as saddlery, harness, and boots and shoes, affords employment to a large number of persons. Other industries are cotton-spinning, brewing, tanning, iron-founding, and the manufacture of bricks, tiles, soap, flour, ironmongery, and ice. The spirit called mastic or raki is largely produced here.

**SAMOKOV**, western Bulgaria ; pop. (1910) 10,440, including about 1,000 Spanish Jews. Seat of a Greek bishop. The town is situated in a fertile plain with excellent pasture and arable land, on the upper course of the Isker, SE. of Sofia. It has 12 mosques, 5 churches, a seminary, a nunnery, and an American mission.

Iron ore (a magnetic oxide of iron, containing 60–70 per cent. of metal), collected in alluvial deposits from the Vitosh and other streams, was formerly obtained in considerable amount, which, however, has decreased. There are tanneries, carpet factories, Morocco leather and lace factories. Samokov is the centre of a considerable trade in butter and cheese. Owing to its plentiful water-supply and healthy climate, Samokov has become a popular summer resort.



**SANTI QUARANTA** (Gk. **Hagii Saranda**), Albania ; pop. 1,100. A small port opposite the N. end of the island of Corfu. The village consisted in 1909 of one street of dilapidated houses with one *han*. Above it, to the left of the pass above, is the Byzantine church of the Forty Saints and to the right a fort built at the beginning of the nineteenth century. There is grave liability to malaria on the coast. Drinking water is scarce and has to be brought from wells  $1\frac{1}{2}$  miles distant. The anchorage is capacious, with depths in the middle of 15–17 fathoms. It lies 5 miles SE. of Cape Kephali, is about  $1\frac{2}{3}$  miles wide, and recedes eastward 7 cables. It is sheltered from all but westerly winds. Large vessels anchor in the middle ; small craft find shelter from W. winds in the northern part near the custom-house. There is a shoal with 1 to 2 fathoms of water,  $3\frac{1}{2}$  cables in length E. and W.  $\frac{1}{4}$  mile S. of the northern point of the bay.

**Tetranisi** is a group of four islets in a bay 5 miles S. of Santi Quaranta. Vessels sometimes anchor behind them in a depth of 9 or 10 fathoms ; the shelter is very good especially in E. or S. winds, but the soundings are irregular. The bay lies on a narrow strip of land bounded on the E. by Voutrinto (Butrinto) lake, a sheet of water  $3\frac{1}{2}$  by  $1\frac{1}{2}$  miles, with depths of 10–12 ft. Bay very shallow on N. side.

**SERES** (**Serres**), Greece (eastern Macedonia) ; pop. 32,000, about half Bulgarian (of whom one-third are Islamized), one-quarter Greek, one-seventh Turkish, and the rest Jews. The town is situated in the plain of the lower Struma, a very fertile district (called by the Turks *Altin Ovassi*, ‘Golden Plain’) thickly studded with villages. The old town (*Varosh*) lies at the foot on the slope of the hill on which stands the old castle. The new town is built on the plain in European style, and is the commercial centre. Principal buildings are the archiepiscopal palace, cathedral, gymnasium, hospital, mosques, and ruined castle.

Seres was the head-quarters of the Turkish wool trade, and has also manufactures of cloth and carpets. There is a large trade in rice and cereals, and other exports include tobacco,

cocoons, and hides. The district produces rice, fruit, tobacco, wine, cotton, opium-poppies, and vegetables.

**SERVIA** (*Serfije*) ; pop. 35,000, two-thirds Mohammedans (but another authority gives the pop. in 1906 as about 10,000, chiefly Greeks). An important town on the r. bank of the Vistritza, at the N. foot of several passes connecting Macedonia and Thessaly, with a ruined citadel. It is the seat of a Greek archbishop. The name is derived from the Servians who inhabited it under the Emperor Heraclius, about A. D. 600.

**SOFIA** (Bulgarian, *Sredets*, i. e. 'central town', a name significant of the aspirations of the people, but now little used), the capital of Bulgaria, the seat of government, the head-quarters of a brigade, a university town, and the seat of Greek and Bulgarian bishops. Pop. (1910) 102,812, increasing rapidly. Of this number 83,403 (81 per cent.) were Greek Orthodox, 2,440 ( $2\frac{1}{4}$  per cent.) Mohammedans, 2,690 ( $2\frac{1}{2}$  per cent.) Catholics, 12,852 ( $12\frac{1}{2}$  per cent.) Jews, 794 Protestants, and 446 Gregorian Armenians. As to language, 44,895 men and 36,010 women, total 80,905 (80 per cent.), spoke Bulgarian; the remaining 10,739 men and 11,165 women (20 per cent.) spoke other languages. 36 per cent. of the population were born in Sofia, 17 per cent. in other parts of the department of Sofia, 28 per cent. in other departments of Bulgaria, and 18 per cent. abroad. Out of the population of 71,888 above 7 years of age, 51,470 ( $72\frac{1}{2}$  per cent.) could read and write.

*Situation.*—Sofia is situated on an upland plain, about 1,700 ft. above sea-level, between the West Balkans on the N. and Mt. Vitosh on the S. Two small tributaries of the Isker, the Perlovitsa, and the Eleshnitsa or Boyana, run round the town on the E. and W. The town was chosen as the capital of the newly created kingdom of Bulgaria on account of its strategical situation at the crossing-place of two great routes from E. to W. and N. to S., and the geographical centre of the Balkan peninsula. It is particularly well placed for dominating the country westwards. Its ambition is to outstrip Bucharest, as



it has outstripped Belgrade, and to become the metropolis of the Balkans.

*General description.*—Since 1880 Sofia has been almost entirely Europeanized. The narrow lanes and mean houses of the Turkish epoch have largely disappeared. New suburbs have been built, with wide parallel streets, and houses mostly designed by foreign architects. Many fine modern buildings have been erected. There is a large new cathedral built by national subscription, public baths with hot springs, a royal palace (built by Prince Alexander in 1880–2, and enlarged by King Ferdinand), public gardens, the largest theatre in SE. Europe, a parliament house, ministries of war, commerce, &c., university buildings, with national press, national library, officers' club, several large military buildings, monuments, &c.

The town is well drained and has a good water-supply. It is lighted by electricity, and has a system of electric tramways.

The railway station, serving the three lines—(i) to Belgrade and Constantinople, (ii) to Plevna, Varna, and Ruschuk, (iii) to Kustendil and Gyueshevo,—is at the NW. extremity of the town.

*Climate.*—The climate is healthy, but liable to sudden diurnal and seasonal changes. In summer it is often very hot, the temperature rising to as much as 100° F. in August ; but there are also extremely cold spells. The air cools very quickly at sunset. In winter the whole district is covered with snow, and the temperature sometimes falls to 4° F. below zero. The snow scarcely disappears till the end of April or May. By the end of June it is full summer, and the snow is nearly all gone, even from the mountains. Autumn begins in the middle of September, and the winter cold in October. There were serious earthquakes here in 1818 and 1858.

*Trade.*—The chief exports of Sofia are skins, cloth, cereals, attar of roses, silk cocoons, dried fruit, &c. There are breweries, tanneries, sugar, tobacco, cloth, and silk factories. The trade is mostly in the hands of Jews.

**STANIMAKA** (Greek *Stenimachos*), Bulgaria ; pop. (1910)



12,969 (more Greeks than Bulgarians ; a few Turks, Jews, and Gipsies). Situated on the Devin Dere, an affluent of the Maritsa,  $11\frac{1}{4}$  miles SSE. of Philippopolis, among vineyards at the mouth of a rocky gorge. It is the centre of a rich vineyard district and has an important wine trade. Sericulture was carried on under British auspices. There is a distillery. The river is crossed by an old stone bridge and wooden foot-bridges. There are Greek schools.

**STRUGA**, Serbia, near Albanian frontier ; pop. 6,000 (half Christian). A small town situated on the peat-moss at the N. end of the Lake Ochrida, on the Black Drin, which is about 50 yards wide and unfordable, but crossed by a wooden bridge. The inhabitants are mostly occupied in fishing, especially for trout and eels, in which there is considerable trade.

**STRUMITSA** (or **Strumnitsa** ; Turkish **Ustrumja**), Bulgaria ; pop. 10,000–15,000 (about half Mohammedans). A town in the extreme south-west of Bulgaria, near the Serbian and Greek frontiers, lying in the valley of the river Strumitsa, a tributary of the Struma, near foothills of a range which separate this valley from that of the Vardar and the Salonica plain. It contains an old citadel, six mosques, and tobacco and cotton manufactories. Seat of a Greek archbishop. In the surrounding country much rice is cultivated. The railway-station, on the Salonica–Üsküb line, is 20 miles distant, in Serbia, by a fair cart-road.

**SUFILI** (**Sofali**), Bulgaria, close to the Turkish frontier ; pop. 12,000. A town on the Adrianople–Dedeagach railway. The inhabitants are almost all engaged in rearing silkworms and the production of wine and tobacco. A market is held every Saturday, frequented by the inhabitants of more than 80 villages of the neighbourhood. A large annual fair, at which good mules can be bought, is held on May 9–11.

**TARTAR BAZARJIK**, Bulgaria ; pop. (1910) 18,098, mostly Bulgarians (2,500 Turks, 1,500 Jews). A town on the l. bank of the Maritsa and on the Sofia–Constantinople railway (station  $1\frac{1}{4}$  miles S. of town),  $22\frac{1}{2}$  miles W. of Philippopolis. It stands in a fertile plain at the junction of several roads,



and has been commercially important since the 15th century. The climate is trying, especially in summer, and fever is prevalent. The place had formerly a more varied commerce : since the building of the railway it has become an agricultural centre only. The low district round the town is easily flooded, and suitable for rice-fields. Millet and tobacco are also grown, and there is some trade in wool and silk cocoons. There are wool, cotton, and silk manufactories.

**TETOVO (Kalkandelen)**, Serbia ; pop. 14,000–18,000. Situated at the junction of the Šarska Rieka with the upper Vardar, at the N. end of the plain of Tetovo. The town lies at the foot of hills clothed with vineyards and forests of oak and chestnut. It is essentially an Albanian town, and contains several residences resembling feudal strongholds. Water is plentiful, and the numerous streams are used to drive turbines for various manufactures.

**TRIKKALA**, Greece (Thessaly). Capital of a department, and seat of an archbishop ; an important road and trade centre, 38 miles W. of Larissa, with railway communication with Volo. Pop. (1907) 17,809, mostly Greeks and Jews. In winter the Vlach herdsmen of the surrounding country retire into the north quarter of the town, and swell the population to 21,000. The most populous quarter (many Jews) is near the bazaar. The town is situated on the slope and plain on S. and E. sides of a hill crowned with a citadel, and on both banks of the Trikkalinos, which describes a half-circle round the SW. quarter of the town. The town contains ten churches, several mosques (two in use), two synagogues, a school, &c. There are three stone and numerous wooden bridges over the broad but shallow river, the banks of which are shaded with planes and other trees. At the foot of the citadel-hill is the new metropolitan church ; from a hill (N. of the town) a wide view is obtained. Trikkala covers a large area, the houses being surrounded with trees and gardens. There are three forts to the N. of the town. Trade in wheat, maize, tobacco, and silk cocoons ; dyeing, tanning, and cotton manufacture.

**ÜSKÜB (Turk. Skoplje)**, Serbia ; pop. 40,000–50,000 in

1912, consisting of 30 per cent. Serbs, 25 per cent. Bulgarian Macedonians, 25 per cent. Turks, and the balance of Moslem and Catholic Albanians and Vlachs. Owing to its favourable geographical situation Üsküb is of considerable commercial and strategic importance. It is situated on both banks of the Vardar, in a wide fertile plain bounded by high mountain chains on the N., W., and S. The town is reputed to be unhealthy, part of the plain being marshy; drainage of this plain would greatly improve the health of the town.

The former citadel (on a hill on the left bank of the Vardar) is occupied as barracks and a military hospital. Behind it is the *konak*, with post and telegraph office. At the foot of the citadel-hill is the old town with the bazaars, Christian quarter, church of the Sveti Marko monastery, built in 1345 by Stephen Dušan, and the Kuršumli Han, formerly the fortified head-quarters of a colony of Ragusan merchants, but now used as a prison. Further E. is the poor Mohammedan quarter. On the r. bank, connected by a stone bridge over the Vardar, are the consulates, railway station, and a mosque used as a powder-magazine. Üsküb has steam flour-mills and tanneries, and a considerable export trade in leather, hides, and agricultural produce. The town is the seat of the archbishop of the Catholic Albanians, of a Greek archbishop, and a Bulgarian bishop. There are Serbian, Bulgarian, and Austrian schools. Üsküb was the ancient capital of Dardania and the birthplace of the Emperor Justinian. In the plain to the N. there is a magnificent Byzantine aqueduct with a double row of about 120 arches.

**VALONA** (*Avlona*), Albania; pop. about 8,000. The town lies in olive gardens, about  $1\frac{1}{2}$  miles from the coast. The bay affords very good anchorage, and is the best harbour on the Albanian coast (see below). In ordinary times regular steamers visited it from Trieste, Brindisi, &c., as well as many small Greek and Turkish coasters. There is a station of the telegraph line, and cable from Constantinople to Otranto. The surrounding district is mainly agricultural and pastoral, producing oats, maize, cotton, olive oil, cattle, sheep, &c.



Some forage could be requisitioned. Bitumen, found in mines near Selenitza, is also worked and exported. The traveller Leake remarks that the plain is so fertile that, if properly exploited, it would be capable of producing enough food produce for the whole population of Albania and Epirus. There are malarial marshes along the coast, and from May to September the place is unhealthy. About 800 men and 200 horses could be lodged in the public buildings and six inns of the town.

**Valona Bay** is 5 miles wide at entrance between Capes Treporti on the N. (low and sandy, shoal water for over a mile off shore) and Linguetta on the S. (rocky and mountainous, rising abruptly over 2,000 ft. Mt. San Vasilio, 2 miles from its termination, is 2,750 ft.). The bay is about 9 miles in length, with general depths of 20–28 fathoms. At the mouth the depths are 20–10 fathoms, shoaling towards Cape Treporti.

There are two anchorages. (1) Skala or landing-place of Valona, in the NE. angle of the bay. NW. winds send in a heavy sea at this anchorage. (2) Dukati, at the head (S. extremity) of the bay. Shelter from all winds; quarantine anchorage. Also two small anchorages: Raguseo Cove, an indentation in the W. side of the bay, well sheltered, 10–12 fathoms, and Kontsorufa Cove at the mouth of the bay,  $2\frac{1}{2}$  miles NE. of Cape Linguetta.

Off the entrance to the bay lies **Saseno Island**,  $2\frac{1}{2}$  miles long and steep-sided. Height 1,087 ft. Channel between Saseno and Cape Linguetta 3 miles broad, with current setting NE. There is temporary anchorage off S. Nicolo Bay, on the NE. side of the island, sheltered from southerly and westerly winds.

**Orso Cove**, about 9 miles from Cape Linguetta, is a small anchorage exposed to the W. and NW. with a steep track over the mountains E. to the extremity of Dukati Bay.

**VELES** (Turk. **Köprüli**), Serbia; pop. 20,000. The town rises picturesquely on steep slopes on both banks of the Vardar, which is crossed by two wooden bridges (Köprü in

Turk. = bridge). Barracks on rising ground just S. of the station (Salonica-Üsküb line). On the S., where the Topolka joins the Vardar, it forms a kind of natural moat for the citadel of Veles, which, where it overlooks the Topolka, is situated on cliffs; on the Vardar side the site slopes more gently. Veles is a trade-centre of some importance, with local industries in silk, woollen and goat's-hair goods and pottery. Wine and raki are made, and in the neighbourhood silk-worms are bred. It is the seat of a Greek archbishop and a Bulgarian bishop. The town has numerous well-built houses, and its inhabitants have the reputation of being enterprising and intelligent.

**VERRIA (Karaferia)**, Greece; pop. (1914) 14,000 (mostly Moslems and Greeks). The town is  $1\frac{1}{4}$  miles S. of its station on the Salonica-Monastir line, with which it is connected by a good chaussée. It is situated on a well-watered spur of the Vermion range, overlooking the fertile Rumluhi plain, which extends to the mouth of the Vardar. The houses are lofty, and town is well supplied with water; the situation is salubrious. There are 26 flour mills, 11 wine and brandy and 9 sesame-oil factories. The churches are numerous, the most important being that of Hagios Christos, with frescoes of 1315. There is a local industry in the manufacture of bath-towels.

**VODENA**, Greece; pop. 10,000-14,000 (Turks, Greeks, Bulgars, and Vlachs). The ancient Edessa, which from the earliest times has occupied an important strategical position at the mouth of the Vladova pass, which is traversed by both the road and the railway between the plain of Salonica and that of Monastir. The chaussée from Salonica winds its way up the southern side of the town. On a knoll to the SW. are a small block of barracks and a magazine. Owing to the numerous tunnels and trestle-bridges in the railway ascent past the town a special garrison is required for its protection. The railway station is a mile N. of the town, with which it is connected by a good chaussée. Vodena is most picturesquely situated on a spur of the Chakirka mountain and on the

banks of the Nisia Voda, a tributary of the Moglenitza. It stands on a level table-land on the edge of a line of limestone cliffs 600 ft. high, down the steep ravines of which a number of streams fall in cascades, which are utilized for irrigation and driving mills. The cliffs are covered with luxuriant vegetation: pomegranates, vines, figs, nut and mulberry trees are abundant, and the streams abound in cray-fish. The town has narrow streets and high stone houses. Water is everywhere plentiful. Vodena is the seat of a Greek archbishop and has several churches and monasteries, of which that of Hagia Triada (partly built of antique fragments) is the most important. The inhabitants are occupied in the manufacture of wool, cotton goods and tobacco, wine-making, and raising silk-worms.

**VOLO**, Greece; pop. 23,363, mainly Greek. Capital of the *nomos* of Magnesia and the Eparchy of Volo, seat of a Greek bishop. The town is situated on the gulf of Volo, surrounded by gardens and olive-yards. It has a fine and safe harbour. Vessels load and discharge by lighters. The W. end of the sea-front is mostly devoted to commerce, and includes the railway station and other public buildings; at the E. end are bathing establishments and private houses. The rows of houses run parallel to the shore. The modern quarter along the shore is thriving, whereas the Turkish quarter, with an abandoned fortress, on a hill to the NW., has decayed. The town has a school, museum, bank, &c. Large export trade in corn, cattle, tobacco, leather, silk, oil, sesame, sheep's-wool. Much of the trade was carried by the German Levant Line. There is railway communication with Larissa and Kalabaka, and daily steamers sail to Piraeus. Volo is the principal port of Thessaly, and industrially is far in advance of Larissa. There is a steam tramway from Volo *via* Agria and Lechoma to Miliaes.

**XANTHI** (Turk. *Eskije*); pop. 5,000;  $\frac{3}{4}$  mile. N. of the station of the same name on the Salonica–Dedeagach railway, with which it is connected by a good metalled road. It is situated at the mouth of a narrow valley at the foot of

the Kara Oglu Tepe, watered by the Eskiye Dere, a stream which becomes nearly dry in the summer. It is the seat of a Greek archbishop, and is an important centre of the tobacco trade.

**YANINA** (*Joannina* ; Turk. *Yania*), Greece (Epirus) ; pop. 20,000–30,000, about half Christians (mostly Greeks, with some Slavs and Albanians) ; all the inhabitants (including Moslems and Jews) are Greek-speaking. Owing to its situation in a populous plain with good communication, Yanina is the natural capital of Epirus. The town is built on and about a rocky promontory, on the W. side of the lake of the same name. It contains 14 mosques, 7 Greek churches, 2 synagogues, a Greek gymnasium, and 8 schools. At the end of the promontory and separated from the town by a deep moat is the citadel, built at the beginning of the nineteenth century by Ali Pasha, but now more or less in ruins. It contains the *konak*, barracks, magazine and Jewish quarter. Yanina is an important commercial centre, and celebrated for its gold embroideries and silks. It is the seat of a Greek archbishop. The temperature, owing to its height above the sea, is never oppressive, though it is subject to rapid transitions, and thunderstorms are frequent. In the lower parts of the town dysentery and malaria are prevalent in the summer. Rich pasture land extends on both sides of the city to a distance of 10 miles.

The lake of Yanina is about 5 miles long and less than 1 to 2½ miles wide. It abounds in fish. It is partly fed by streams and partly by underground springs, and communicates by a marshy overflow with the lake of Lapsista, which is emptied by a subterranean channel into the river Kalamas. The water of the lake of Yanina is unhealthy in summer. A peculiarity of the lake is the presence of floating islands, sometimes with trees growing on them and inhabited by fishermen, which drift slowly about according to the prevailing winds. The small island of Lapsistas, with its seven monasteries and a ruined stronghold, stands in the lake.

**YENIJE VARDAR** (*Yanitza*), Greece ; pop. 9,000–10,000.

The chief town in the plain of Salonica, at the south-western foot of the Paik Planina. It lies about 3 miles N. of the lake of Yenije, the centre of a vast marshy region drained by the Kara Azmak, the haunt of innumerable wild fowl. The population is chiefly Bulgarian, engaged in the cultivation of tobacco, vines, poppies, and silk. Yenije Vardar has several mosques and two churches. There is good grazing on the plain, and fodder is plentiful.



## ISLANDS IN THE AEGEAN SEA

**IMBROS.**—An island about 18 miles SE. of Samothrace, 12 miles NE. of Lemnos, and about the same distance W. of the Gallipoli Peninsula, in  $40^{\circ} 5' - 15' \text{ N.}$ ,  $25^{\circ} - 26^{\circ} 40' \text{ E.}$  It is hilly and rugged, partly wooded and with fertile valleys. The highest mountains are Hagios Elias (1,959 ft.) and Hagios Dimitrios (1,878 ft.). The population is about 9,100 (Greeks). The principal place is Kastro, on the N. coast. It is the site of the ancient town of Imbros, which lay on the rock between two bays; that on the N. (Kardamos) is exposed to the prevalent north winds, and the usual landing-place is in the bay to the S. (Nikolaos), where the Ilissos, the principal river of the island, enters the sea. The landing-place from Lemnos is at Pyrgos, about half-way between Cape Avlaka and Cape Niger. The inhabitants are almost entirely occupied in growing wheat, oats and barley, in bee-keeping, and breeding goats. There is said to be good woodcock shooting in the autumn. The chief village in the interior is Panagia, with about 3,500 inhabitants. Brown coal is found near Arassia. The mine has been worked by a German company, but is said (1908) to have been unremunerative. It was exported from Kusu Bay, which, though large and deep, is not used for anchorage, owing to its exposure to northerly winds.

**LEMNOS** (Turk. *Limni*).—An island of irregular shape, about 12 miles south of Imbros, in  $30^{\circ} 45' - 40^{\circ} \text{ N.}$ ,  $25^{\circ} - 25^{\circ} 30' \text{ E.}$  It is comparatively flat, the highest point being Mt. Skopia (1,401 ft.) on the N. coast. It is divided into two parts by the bays of Purnia (N.) and of Mudros (S.); the isthmus between the two is under 3 miles wide. The bay of Mudros is nearly land-locked, and has good anchorage for large vessels. The island is almost treeless (excepting some almond and fruit

trees), with a few small streams and a salt lake on the E. coast. In the centre is a large and fertile undulating plain with several villages and farms, producing barley and wheat, tobacco, sesame, cotton, wine, onions, honey, wax, cheese, and wool. The population (mostly Greek) is about 27,000, occupied in agriculture, sheep-breeding, and fishing. There are sponge-fisheries. The principal place is Kastro, on the W. coast, with a small harbour and a mediaeval castle on a rocky peninsula. An hour and a half NW. of Kastro, from which there is a carriage-road, are some warm baths (temp. 100° F.), efficacious against rheumatism and skin diseases. The water is injurious to those who are not natives. Of late years the population of Mudros, on the bay of the same name, has exceeded that of Kastro.

**SAMOTHRACE** (*Samothraki*, Turk. *Semadrek*).—An island 20 miles SW. of Dedeagach, in 40° 25'–30' N., 25° 25'–40' E., about 70 sq. miles in area, with a population of 4,600–5,000, nearly all Greek Christians. A chain of mountains runs from E. to W., with four principal summits: Phengari (5,248 ft.), Hagios Elias, Hagia Sophia, and Hagios Georgios. There are no harbours, but good anchorages, though unsafe in the winter owing to the violence of the N. winds and the strong currents from the Dardanelles. The safest landing-place is in the Bay of Kamariotis, near Cape Akrotiri on the W. coast. The usual landing-place from Dedeagach is at Paleopoli on the N. coast, where there is an excellent spring of drinking-water. There are also landing-places at Cape Malathrea (S.) and at the mouths of the streams Phonias and Angistro (NW.). The wild mountains in the eastern part of the island are the haunt of ibex. The cultivated land is chiefly on the W. and SW., where the climate is milder than on the N. The mountains are bare, but the lower land is fertile; the streams on the S. are mostly dried up in the summer, but those on the N. are plentiful. The only inhabited place is Chora (or Samothraki), situated in a valley beneath a ruined castle several hundred feet above the sea, about an hour south of Paleopoli. On the N. coast, three hours from Chora, are hot sulphur springs

much frequented from the mainland and the neighbouring islands. The island is healthy, and produces some fruit, wood, charcoal, and good honey.

**THASOS.**—The northernmost island of the Aegean, in  $40^{\circ} 34' - 50' \text{ N.}$ ,  $24^{\circ} 30' - 45' \text{ E.}$ , 5 miles from the mainland near the mouth of the river Myesta. Its area is about 160 square miles, with a circumference of about 40 miles. The island is of volcanic origin, rising steeply to the mountains in its centre, the highest point of which is Hipsarion (3,428 ft.) in the NE. 'With its full clear streams, its pine forests, its exquisite woodlands, and its grey limestone cliffs, it is one of the most beautiful islands in the Aegean.' Owing to the raids of pirates the sea-coast was uninhabited, all the villages being situated at least half an hour from the sea, each with its own small landing-place (*skala*). The population is 13,050, entirely Greek Christians. The capital was formerly Theologo, in the SE., and subsequently Panagia (NE.), the *skala* of which is Limena, on the site of the ancient town of Thasos. In recent years Limena has become of increasing importance, and it is now the chief place in the island. It is situated in a natural amphitheatre, facing NW., and surrounded by olive-gardens and pasturage. It has two small harbours, and good spring water, but is subject to torrential rains in the wet season. Steamers run to Kavalla two or three times a week. Panagia is beautifully situated, facing E., about  $1\frac{1}{2}$  miles from the Bay of Potamia. It has an abundant water-supply, and its *skala* possesses some sort of anchorage. N. of Potamia Bay is Cape Pyrgos (or Pirokas), beyond which is the little harbour of Bathu, where good caiques are built (1907) by the owner of a French concession. SE. of Panagia is Kinara, situated due W. of the N. end of the islet of the same name, but wrongly marked on maps as SW. of the S. end. It is merely the eastern *skala* of Theologo, and is unoccupied in summer. On the S. coast is the deserted district of Aliki, with marble quarries on a tongue of land jutting into the sea, parallel to the coast, so as to form a small harbour. The water-supply here is bad, but there is a well of good water, usually low,

about 200 yds. from the shore of a cove called Rechia, E. of the peninsula. The water in a well on the isthmus of the peninsula is undrinkable. At the S. end of the island is Cape Kokkina (not named on the maps), about  $1\frac{3}{4}$  miles S. of the *skala* of Astris, which lies  $1\frac{1}{2}$  miles NE. from the coast; in the summer the heat in this district is extreme, and the water-supply is bad. Farther along the coast to the NW. is the hamlet of Poto, the western *skala* of Theologo, with two wells not far from the sea. West of Poto is a small pier, workmen's houses, and a large building on a height. This is Hamadieh, the *skala* of the poor village of Kastro (about 3 hours' distant to the NE.), and the place of embarkation for the ore from the valuable zinc mines developed in 1903 by a German firm. On the W. side of the island are the villages, each with its *skala*, of Maries, Kakerachi, Sotero (with iron mines), Kazaveti, and Voulgaro.

Thasos is rich in iron, silver, copper, antimony, and zinc; gold is said to have been obtained by the Phoenicians near Kinara, but no trace of the workings has been discovered. Besides minerals, the island produces marble, timber, wine, olive-oil, and fruit. Good potter's clay is found in the northern districts, but the local potteries have decayed. The production of honey, once of importance, has also declined in recent years.

А.П.О.



# INDEX

*The acute accent thus—Larissa (excepting é in Serbian names) indicates the syllable on which stress falls, and is inserted here in all names of which it has been possible to ascertain the pronunciation.*

## A

- Abadeirman Dère, 416  
 Abdi Pasha Han, 243  
 Abdul Hamid II, 71, 83  
 Achelous : *see* Aspro-pótamo R.  
 Acheron : *see* Lakiótikos R.  
 Achrida : *see* Óchrida  
 Adali, 393  
 Adramesi, 382  
 Adrianóple, 35, 72, 351, 353, 358, 363, 364, 369, 419, 454, 459  
 Adriatic Sea, 46, 49  
     temperature on coast, 47  
 Aegean Sea, 43, 49, 223  
     climate, 44, 50  
     islands, 496-499  
     temperature on coast, 47  
 Aetolia, 20  
 Agaköi, 260  
 Agalar, 335  
 Agnanta, 137, 148  
 Agoriani, 426  
 Agostos : *see* Nyaousta  
 Ágrafa, 135, 136, 140  
 Ágrafa Mts., 136  
 Agrañótikos R., 136  
 Ague, 64  
 Ahinos, 326  
 Aidin Óbasi, 337  
 Aidinovo, 308  
 Ai-Dogmúsh, 350  
 Aivali, 429  
 Aivalik, 413  
 Aiván, 146  
 Aivasil : *see* Hágios Vasílios  
 Aivatli, 285  
 Aji L. : *see* Tuzulu L.  
 Ájilare, 307  
 Ájisi Dère, 347  
 Ajvatovac, 439  
 Akbar Álta, 349  
 Ákcha Kairák, 349  
 Akheklise, 408, 410  
 Ákhor Kói, 363  
 Akinjali, 282, 422, 443  
 Akrotiri, Cape, 497  
 Akrotiri Mt., 31, 113  
 Áksu Dère, 345, 346, 446  
 Áktoprák, 312  
 Ák Yókush Mts., 259  
 Áladin, 347  
 Áladja, 273  
 Alakinci, 261  
 Albánas, Dólnja, 344  
 Albania, 9  
     administration, 79  
     army, 11  
     communications, 16  
     history, 69  
     mountains, 10  
     population, 79  
     religion, 75  
     sanitation, 67  
     weights and measures, 89  
 Albanians in Macedonia, 73, 74  
 Aleksandrovo : *see* Hád-zarlar  
 Álemdar, 326  
 Alexsia, 408  
 Ali Hójalar, 250  
 Alikí, 498  
 Álikóchovo, 307, 308  
 Álimbey Kói, 361  
 Álino, 317, 318  
 Alistrat, 286, 287  
 Alizot, 191  
 Alliye R., 303  
 Almonds, 378  
 Alonia : *see* Anastásia  
 Aluta R., 38  
 Alvandere : *see* Grá-dishte, Máli  
 Alvóútia Mt., 389, 390  
 Amátovo, 433  
 Amátovo L., 250, 433  
 Ambárköi, 408  
 Ambelákia, 104  
 Amphipolis, 37  
 Aná Dère, 222  
 Anastásia, 397  
 Anastasias Mt., 373  
 Angéltsi, 257  
 Ángista, 287, 327, 328, 329, 444  
 Ángista R., 287, 327  
 Angistro R., 497  
 Ano Kalendini, 138  
 Ano Kopanós : *see* Yókari Kopanóva  
 Antimony, 380  
 Antiprósoyos, 384  
 Aous R. : *see* Voyúsa R.  
 Ápidanos R. : *see* Pher-saliti R.  
 Apídia, 326, 414  
 Aponómi, 393, 395  
 Apricots, 378  
 Arachthus R. : *see* Artinós R.  
 Arapítza R., 221  
 Arapli, 224.  
 Arassia, 496  
 Arazli R., 436  
 Arbutus, 379  
 Árda R., 42, 338, 339, 343, 348, 352-355  
 Ardamon Mt., 217

- Ardonista, 203  
 Argyrôkastro, 166, 167,  
 171-173, 180, 181, 462  
 Arilla Bay, 163  
 Arinista Han, 167  
 Arisbánitsa Mt., 300  
 Arjan Göl, 248  
 Armareda Bay, 176  
 Armeni, 182  
 Armenian Church, 81  
 Armensko, 210  
 Arnáut Kõi, 362  
 Arositani Han, 183  
 Arpitz Bay, 163  
 Arsenik Bányá, 368  
 Arta, 22, 128, 135, 137,  
 139-143, 149, 150-  
 152, 154, 184, 204  
 Arta, Gulf of, 9, 23, 150  
 Artinós R., 21, 141, 148,  
 149, 201, 204  
 Arvanit: *see* Kákavos  
 Mt.  
 Arženica, 259  
 Asapichori: *see* Zábko  
 Asbestochorion, 324  
 Ash, 379  
 Asmáki R., 103  
 Asprángeli monastery,  
 168, 191  
 Aspri Ruga R., 175  
 Asproklisiá, 213, 215  
 Aspropótamo R., 21,  
 135, 138, 139, 142,  
 144, 145, 146, 150,  
 205  
 Asproválta, Skala, 325  
 Astaka, 169, 191  
 Astaka L., 169, 191  
 Astris, 499  
 Átaran Dère, 364  
 Átesh, 298  
 Athens, 418  
 Áthitos, 396  
 Athos, 370, 372, 375,  
 381, 382, 383, 384,  
 391, 402  
 Áthos, Gulf of, 371  
 Athos, Isthmus of, 398,  
 404  
 Áthos Mt., 371, 376, 381,  
 386, 402, 404  
 Atmajali, 394  
 Austria, 72
- Avlaka, Cape, 496  
 Avrámova Kúla, 301  
 Avret Hisar, 224, 248,  
 250  
 Avliköi: *see* Zivkovo  
 Avti Mt., 149  
 Ayák R., 250, 442, 443  
 Ázmaç R. (Bulgaria),  
 453  
 Ázmaç R. (Serbia), 258
- B
- Bába, 104, 427  
 Bába Mt., 146  
 Bába Plánina, 231, 239  
 Babait Han, 189  
 Babaköi-Vardár, 248  
 Babúna Han, 243, 244  
 Babúna R., 243, 438  
 Bäckkovo, 344  
 Bachkóvska R., 343  
 Badiška, 39, 242  
 Badúlin, 305, 306, 332,  
 334  
 Bagréntsi, 315  
 Bakrátsi, 124  
 Bakrina, 427  
 Balabánjik, 361  
 Balartsa, 414  
 Bálíja, 355  
 Bálíkchi Dère, 349, 350  
 Bali Oglulari, 412  
 Balkan Mts., 43  
 Balkan Peninsula: cli-  
 mate, 43, 64  
     communications, 35  
     rainfall, 44  
     snow, 44  
     winds, 44  
 Balkán Tóresi Mts., 351  
 Balkan War (1912), 30,  
 36, 39, 42, 71, 75  
 Balkan War (1913), 71  
 Banitsa, 223, 229, 432  
 Banitsa R., 296  
 Bânja (nr. Gëvgeli), 255  
 Bânja (nr. Ishtib), 272  
 Bânja (nr. Nish), 450  
 Bânjska R., 440  
 Bânjsko, 253  
 Bânska R., 451, 456  
 Bânsko, 299
- Bányá (nr. Samokov),  
 318  
 Bányá (nr. Yakoruda),  
 297, 301  
 Bányá (nr. Yenije Var-  
 dar), 225  
 Bányá, Dólnya, 323  
 Bányá, Górnya, 269,  
 316, 458  
 Bányá-Kóstenets, 323,  
 365, 452  
 Bára, 395  
 Barakli, 255  
 Barakli Juma, 287  
 Barakli R., 256  
 Barákovo, 274, 293  
 Barbárec, 242  
 Barbárec Pass, 242  
 Barešáni, 231  
 Bariltsi, 277  
 Bashanli, 410  
 Bashikárovo, 307, 308  
 Bashishti R., 406, 410  
 Bashíya, 300  
 Báshkõi, 285, 413  
 Basiz: *see* Dálian  
 Bátak, 305  
 Batopaidion: *see* Vato-  
 pédion  
 Bedékli, 359, 361, 449  
 Bédén, 340  
 Bedníchka, 274  
 Beech, 12, 374, 379  
 Bees, 378  
 Beki-Amouri, 426  
 Bekriler, 427  
 Béla Chérkva, 343  
 Belakóvce, 270  
 Bela Palanka, 450  
 Belaréka, 368  
 Belashitsa Mts., 253,  
 283, 443  
 Bélée, 235  
 Belgrade, 35, 419, 420  
 Bel ísker, 323  
 Bélitsa Plánina, 365  
 Bélitsa R., 286, 287, 289,  
 290, 326, 451  
 Belopólye, 274  
 Belotinci, 441  
 Belusi, 178  
 Belyovo, 456  
 Bentza, 173  
 Bentza R., 173

Berákli, 262  
 Berat, 21, 181-187, 190,  
 192, 463  
 Beravista R., 240  
 Bérgos Déresi, 325  
 Béris Déresi, 261  
 Berlin Treaty, 70  
 Bérovo (Greece), 285,  
 413  
 Bérovo (Serbia), 278,  
 279  
 Beróvska R., 279  
 Besdáni, 169, 191  
 Bëshik Dagħ, 285, 406,  
 407, 413-416  
 Bëshik Dère, 407  
 Bëshik L., 324, 370, 371,  
 379, 386, 391, 404,  
 406, 407, 415  
 Besh Tepe Dagħ, 355  
 Betzáni, 152  
 Betzáni Han, 152, 203  
 Bichákji, 303  
 Bigla, 273  
 Bigor Dolénci, 242  
 Bíklišhta, 193, 206, 209  
 Binačka Morava R., 441  
 Bístrica, 231  
 Bístrica R., 230, 231  
 Bístritsa, 317, 318  
 Bístritsa R., 291, 292,  
 303, 311, 456  
 Bitinje, 39  
 Bitolj : *see* Monastir  
 Blagusa Plánina, 436  
 Bláto, 256  
 Bláto R. (Bulgaria), 318  
 Bláto R. (Serbia), 240,  
 241, 243  
 Blizánci, 263  
 Bobishta, 208  
 Bobóvdol, 268, 315  
 Bodoma : *see* Yéniköi  
 (nr. Dédeagach)  
 Bódrovo, 368  
 Bogatzko, 207  
 Bogdanci, 252  
 Bogoródica, 251  
 Bogoróditsa monastery,  
 344  
 Bogútevo, 343  
 Bohémitsa, 248, 434  
 Bóiran, 331  
 Bojáne Han, 238

Bok Dère, 368  
 Bórisovgrad, 367, 453  
 Bórlova Kúlbeleri, 254  
 Bornik, 156  
 Borova, 192  
 Boroztian, 192, 194  
 Borsi, 170  
 Bošava R., 255, 437  
 Boshbosh Dère, 345  
 Boshúlya, 366  
 Boubolina R. : *see* Mou-  
 zaki R.  
 Bouglar, 125  
 Boyana, 269  
 Boyimia R., 252  
 Boz Dagħ, 331, 332  
 Bozéch, 248  
 Bralo, 418  
 Brátin R., 194, 233  
 Bratsígovo, 306, 307,  
 308  
 Bregalnica R., 247, 258,  
 271-275, 278-280  
 Brégovo, 344  
 Breshtyani, 185  
 Brésnitsa, 280, 291  
 Brestovac, 441  
 Bréza, 340  
 Bréznitza, 208  
 Brod, 39, 242  
 Brod R., 229  
 Bródi, Gorni, 296  
 Bródska R., 296  
 Brúsnik, 233  
 Bryéstovo, 368  
 Bryéznik, 268  
 Bryéznitsa, 299  
 Bryézovo, 367  
 Bucharest, Treaty of, 72  
 Búčište, 263, 272  
 Buf, 210, 231  
 Buh : *see* Buf  
 Bujanevce, 440  
 Buk, 422, 445  
 Buka Preslap, 318  
 Bukarovce, 440  
 Buklája Déresi, 351  
 Búkova Mts., 338, 341,  
 342  
 Búkovečan, 236  
 Búkovec, 275  
 Búkovo, 231  
 Búksić Mts., 236  
 Bulgár, 396

Bulgaria : administra-  
 tion, 78  
     climate, 43, 44, 45, 47  
     history, 69, 72  
     money, weights and  
     measures, 90, 91  
     railways, 423-425  
     rainfall, 49  
     religion, 74  
 Bulgarian Church, 73,  
 74, 81  
 Bulgar Köi, 363  
 Bulgars, in Chalkídike,  
 381  
     in Macedonia, 73  
 Bulustra, 337  
 Bunár Dagħ, 329  
 Bunavia, 182  
 Búrgas, 45, 46, 54-63,  
 453  
 Búrgas R., 347, 352  
 Burhán-ed-Din, 346  
 Búrník, 333  
 Buru L., 337, 346  
 Búseva Plánina, 241  
 Bútkovo, 289  
 Bútkovo Göl, 283, 288,  
 443  
 Bútkovo Juma, 283  
 Bútkovo R., 283, 443  
 Buvalitsa R., 185  
 Buyúk Dère, 250  
 Buzíčevo, 275  
 Byéga, 308  
 Byélchin, 317, 318  
 Byelchínska Bánya, 317  
 Byélitsa Han, 292  
 Byélovo, 323

C

Cala Kaka, 176  
 Cambunian Mts., 64,  
 112, 115  
 Čardákli, 272  
 Cárevo, 271, 273-275,  
 277, 280  
 Caribrod : *see* Tsaribrod  
 Carpathian Mts., 38  
 Car Vrh : *see* Sultán  
 Tépe  
 Cáske Hills, 247  
 Cassándra, 370, 372, 379,  
 381, 382, 396

- Cassándra, Cape, 397  
 Cassándra, Gulf of, 371, 375, 380, 386, 398  
 Cassándra, Isthmus of, 398  
 Cebren, 227  
 Čekrikci, 230  
 Celopéc, 242  
 Čéltiki, Górnji, 244  
 Cer, 238  
 Cerhóvci, 275  
 Cérška R., 238  
 Cérvník, 277, 279  
 Chádír Káya, 334  
 Chafa (Pass): *see under specific name*  
 Chai Ághizi, 284, 324, 325, 326, 327  
 Chair, 283, 355  
 Cháirjik, Karaul, 304  
 Chákán, 228, 229  
 Chákarlar, 350  
 Chákmáklar, 347  
 Chalíki, 132, 147, 202, 204, 205  
 Cháliköi, 357  
 Cháلكali, 253  
 Chalkídike, 37  
     cattle-breeding, 378  
     communications, 371, 375, 376  
     fauna, 379  
     forests, 379  
     government, 382  
     harbours, 372  
     industries, 379  
     minerals, 379  
     monasteries, 383  
     mountains, 371, 372  
     physical geography, 370-378  
     population, 381  
     religion, 385  
     resources and agriculture, 378  
     rivers, 371, 377  
 Chalkis, 418  
 Chamkóriya Bányá, 314, 323  
 Chámurli, 320, 322  
 Chánkir Dére, 338  
 Chanópoulon Han, 154  
 Charcoal, 379  
 Chassia, district, 380, 382  
 Chassia Mts., 212, 214, 215  
 Chátak, 338, 339, 341  
 Chatalja, 71  
 Chatzilar: *see* Hajilari  
 Chatzóbashí, 104  
 Cháush Dére, 357  
 Chekre, 195  
 Cheltikchi, 226  
 Chemins de Fer Orientaux, Compagnie des, 420  
 Chepeláre, 45, 46, 54-63, 338, 340, 341-343  
 Chepelárska R., 341, 342, 343  
 Chepelje Dére, 444  
 Chepelli, 255  
 Chepél Ormán, 337  
 Chepinska: *see* Bányá (nr. Yakorúda)  
 Cherkésköi, 325  
 Chérni Isker, 314  
 Chernovítsa, 333  
 Cherry, 378  
 Cheshnegir, 453  
 Chésme Dére, 331  
 Chestnut, 379  
 Chiftlik Dagħ, 312  
 Chiliandári, 383  
 Chimára, 173-175  
 Chingane R., 434  
 Chingane Bogħaz, 434  
 Chinganeli, 394  
 Chírpan, 367, 368  
 Chitak: *see* Belaréka  
 Chlorodyne, 65  
 Chobán Köi, 357  
 Chobanli, 394  
 Choíka, 157  
 Cholomónða Mts., 372, 380, 382, 390-392  
 Chora, 497  
 Chormítza, 403  
 Choropáni, 221  
 Chrome, 380, 381  
 Chrysou, 136  
 Chúkovets, 268  
 Chukur Ambar, 198  
 Chúkúre Dére, 343  
 Chumlékji Köi, 361  
 Čífde Han, 266  
 Čiftlik Dren, 255  
 Coal, 268, 315  
 Code Napoleon, 79  
 Constantinople, 35, 46, 49, 54-63, 419, 422, 455  
 Constantinople Bank, 380  
 Corfu, 23  
 Corn, 33, 374, 378  
 Cotton, 378  
 Cranópolis, 403  
 Crna R., 73, 227, 229, 230, 235, 236, 239, 240, 245, 246, 273, 437  
 Crni Kámen, 273  
 Crsko, Dólnja, 236  
 Crvena Reka, 450  
 Cúka Gólek, 273  
 Cypress, 379

## D

- Dabílja, 279, 281  
 Dáfni Bay, 402, 403  
 Dagóniya, 301  
 Dálian, 387  
 Damási, 31, 117, 118, 120, 129  
 Dámjan, 257  
 Danube R., 38  
 Daoukli L.: *see* Nezeró L.  
 Daudbaba Mts., 407  
 Dauli, 408  
 Davidovo, 40, 255  
 Davítziana, 204  
 Dèbelidak, 268  
 Debr, 344, 367  
 Dèbra: *see* Dibra  
 Dèbrište, 241  
 Dèdeagach, 41, 42, 356, 357, 358, 359, 422, 447, 448, 463  
 Deer, 379  
 Dèlbok Izvor, 344, 367  
 Delidérlica, 260  
 Dèli Hassán, 289  
 Delmiraga Han, 153  
 Delvináki, 181  
 Delvináki, Han, 167  
 Dèlvino, 166, 167, 171, 172, 464  
 Demarch, 77



- Demir Bëyli, 357, 446  
 Demir Hisâr, 251, 282, 284, 286, 288, 289, 290, 297, 309, 444, 464  
 Demirhisâr, 235  
 Demir Kapû, 254, 255, 256, 436, 437  
 Demir Kapû defile, 437  
 Demirli, 427, 430  
 Demôtika, 9, 352, 358, 359, 449, 464  
 Derbënd Déresi, 331  
 Derbënd Kâra Bunâr, 361  
 Derbîna, 104  
 Dereli-Kaitza, 426  
 Derenkli, 127  
 Dervendishta, 202  
 Dervent : *see* Debr  
 Dervîtziana, 159  
 Désna Babûna R., 243, 244  
 Desnîtza R., 177, 189  
 Dévebâir Pass, 263, 264, 266  
 Devoli, Klisura : *see* Tsangôn Pass  
 Devoli R., 186, 188, 193, 208, 209  
 Dhissakata : *see* Diskâta  
 Diaporos Island, 375  
 Diarrhoea, 65  
 Diâva, 110  
 Dîbra, 234, 241, 242, 243, 465  
 Dikânya, Dôlnya, 318  
 Dillën, 357  
 Dimënce, 270  
 Dimítrios B., 402  
 Dimnîtza, 30, 213-215, 218, 219  
 Dîniklí : *see* Lôzen  
 Dionisiou monastery, 403  
 Dioryx R., 169  
 Dipótamo R., 201-203  
 Diran : *see* Alliye R.  
 Dirmil : *see* Dremiglava  
 Diskâta, 30, 119, 120, 213, 215, 216, 218-220  
 Diskâta R., 121, 220  
 Dîvjak, Dôlnji, 239  
 Dîvjak, Gôrnji, 235, 239  
 Divôtino, 268  
 Dîvra : *see* Dîbra  
 Djevdjelija : *see* Gëv-geli  
 Dôbra Mt., 271  
 Dôbrava Mt., 293  
 Dôbren, 303  
 Dôbrich R., 368  
 Dobrinishte, 297-300  
 Dôbrolâka R., 311, 312  
 Dobronik, 190  
 Dobropolje Mt., 226  
 Dobroshintsi, 278  
 Dobrzâne, 262  
 Dôdona, 159, 160  
 Dogânji, 393  
 Dogânovo, 365  
 Dogányi, 274  
 Dôiran, 224, 247, 249, 251, 253, 282, 286, 287, 289, 290, 326, 406, 408, 435, 443, 465  
 Dôiran L., 251, 443  
 Dokimos, 385  
 Dôksato, 331  
 Dokushli, 412  
 Dôlen bridge, 245  
 Dolénci, 235  
 Doliana, 147, 168  
 Dolni, Dolnja : *see under specific name*  
 Dolnoselo : *see* Malanovska  
 Dôlyan, 303  
 Doménikon, 118, 120  
 Domoko, 28, 32, 123, 125-127, 426  
 Dômuz Dêre, 306  
 Donofrosa, 185  
 Doról Oba, 253  
 Dôrtali, 196  
 Dôspad, 305, 336, 334  
 Dôspad Han, 302, 304, 332  
 Dôspad R., 304, 306, 334  
 Douklista, 109  
 Douško monastery, 143  
 Dova Tepe, 283, 406, 443  
 Dôvlen, 305, 306, 339, 346  
 Dovrá Han, 168, 191  
 Dovrátovo, 198  
 Dovreni, 187  
 Dovrói, 142  
 Doxara, 427  
 Drachani, 126  
 Dragárina, 234  
 Dragiâdes : *see* Trajas  
 Dragîchevo, 269, 296  
 Dragîsec Mts., 235, 239  
 Dragoman, 424, 451  
 Dragoman Pass, 451  
 Dragomantsi, 226  
 Dragomí, 158  
 Drágomir, 279  
 Dragóneva Mts., 279  
 Dragor R., 230  
 Dragos, 288, 412  
 Dragoš, 232  
 Dragoti, 177  
 Dragovishtitsa R., 456  
 Dragovisti, 145, 147, 149, 150, 205  
 Dragushinovo, 321  
 Drahóvica, Gôrnji, 255  
 Drâma, 41, 70, 286, 287, 306, 329-332, 422, 445, 465  
 Dramanitsi R., 444  
 Dranista, 107  
 Dránova, 329  
 Drashtanitsa R., 301  
 Drébishna, 364  
 Dremiglava, 408, 409  
 Drénovo, 193  
 Drénovo Han, 246  
 Drénska Plánina, 244  
 Drénska R., 254  
 Drepano Point, 162  
 Drin R., 167, 172, 173, 177, 180, 258  
 Drísko Mt., 203  
 Drizit, 184  
 Drúgovo, 242  
 Drymâdes, 175  
 Dubkan, 183  
 Dudular, 224  
 Dújarás, 353  
 Dukâdhes : *see* Dukâti  
 Dukánjilar, 349  
 Dukâti, 170, 175  
 Dukâti Bay, 175  
 Dukâti R., 170  
 Dukatino, 257



Dundarli, 412  
 Dupeni, 194  
 Dúpnitsa, 269, 286, 294,  
 316, 457  
 Dúpnitsa Pass, 295  
 Duralii: *see* Stóykovo  
 Durazzo, 36, 46, 54-63  
 Durmish, 189  
 Dusari, 188  
 Dútlí, 296  
 Dvoran, 193  
 Dýrrhachium, 36  
 Džep, 441  
 Dzhidzhovo R., 305  
 Dzhermán (nr. Démir  
 Hisár), 309  
 Dzhermán (nr. Sofia),  
 321  
 Dzhérmen, 294  
 Dzhérmen R., 294, 295,  
 316

## E

Ebibj: *see* Hebíbohevo  
 Edirne: *see* Adrianople  
 Edrenik, 257  
 Edrínski Han, 302  
 Egnítsa, 268  
 Egri Bujak Plain, 197,  
 210  
 Egri Bujak R., 432  
 Égridére, 339  
 Egri Palánka, 40, 263,  
 264, 266, 270, 271,  
 273, 466  
 Égrisú Han, 270  
 Ekshisu, 432  
 Elassóna, 27, 28, 30,  
 103, 105, 108-112,  
 114, 115, 118, 119,  
 196, 197, 218-220, 466  
 Elassóna, plain of, 29,  
 112, 114, 118  
 Elassonitikos R., 31,  
 108, 114, 119  
 Élbasan, 186, 234, 243  
 Eleftherochóri, 106, 115  
 Elésh, 331  
 Eléshnitsa R., 276  
 Elishan, 287  
 Élli Dére, 301, 302, 323  
 Élmala, 338  
 Elmizi, 192

Elms, 379  
 Emledin, 364  
 Enipeus R., 124, 125,  
 127, 427  
 Enos, 358, 360  
 Enteric, 67  
 Enver Bey, 71  
 Epirus, 9, 10, 128  
     communications,  
     15, 18, 19, 21  
     harbours, 23  
     physical geography,  
     20  
     rivers, 21  
     supplies, 24

*Epitropoi*, 3  
 Erdželi, 258, 261  
 Eremiya, 276  
 Ergirikastró: *see* Argyró-  
 kastro  
 Erikli, 352  
 Eriso Mts., 375  
 Érisos, 379, 391, 399,  
 403, 404  
 Érisos, Gulf of, 371  
 Ernevesti, 197  
 Eskije: *see* Xánthi  
 Eskije R., 337  
 Eski Kôî, 362  
 Eski Kôî: *see* Starosêlo  
 Etesian winds, 50  
 Ethnology, 72  
 Evgenik Mt., 166  
 Ezevo Pôlje, 258

## F

Falurli Chai, 446  
 Fariš, 243, 246  
 Fáriš, Han, 245  
 Fátova, 338  
 Felibe: *see* Philippó-  
 polis  
 Feras, 184  
 Ferejik, 359, 360, 422,  
 447, 448  
 Fesombey, Han, 203  
 Fieri, 181-184  
 Figs, 47, 378  
 Filipiades: *see* Philip-  
 piáda  
 Filipovo, 298  
 Fir, 12  
 Fish, 379

Fitochi R., 167  
 Fitoki, 413, 414  
 Flera, 170  
 Flórina, 193, 208-210,  
 229, 231, 232, 432, 466  
 Floru R., 358  
 Fog, 51  
 Fostanla, 358  
 Fotólivo, 328, 329, 445  
 Frost, 56  
 Furka, 177, 252  
 Furka Pass: *see* Phoúr-  
 ka Pass  
 Fushinajik, 108  
 Fyertha, 39

## G

Gabra R., 365, 451  
 Gabreš, 254  
 Gabrovo, 253, 277  
 Gaitanínovo, 310  
 Gajrése, Próni, 242  
 Gala L., 360  
 Galatista, 40, 381, 382,  
 386-388  
 Galena, 380  
 Galiko bridge, 249, 430  
 Gálíko R., 106, 224, 249,  
 408, 410, 433, 442  
 Galichitza Mt., 193  
 Galishan, 223  
 Gallípoli, 360  
 Gara Belyovo, 452  
 Gardikaki, 167  
 Gardíki (nr. Dragovísti),  
 146, 148, 150  
 Gardíki (nr. Paramy-  
 thía), 158, 169  
 Gardíki (nr. Tepeléni),  
 171  
 Gardíki R., 150  
 Garlic, 66  
 Gávrolakos R., 389  
 Gávrovo Mt. 135  
 Gédikler, 355  
 Genish Dére, 226  
 Georgonádes, 130  
 Georgioutzádes, 167, 172  
 Gerakári, 216  
 Gerakaron, 324  
 Gerakli, 126  
 Gerbashel, 250  
 Gerjina R., 171, 175

- Gerli, 122, 429  
German influence in  
    Turkey, 72, 83  
Geron, 383  
Gévgeji, 225, 248, 251,  
    252, 254, 255, 435, 467  
Ghénjeli, 335  
Gherondas, 384  
Gída, 195  
Gída-Kapsohora, 195,  
    431  
Gijavat Pass, 194, 233  
Gilan, 39  
Gíonthi, 143  
Giornitsovo: *see* Gor-  
    níchevo  
Gipsies in Chalkídike,  
    381  
Giuvánu, 146  
Gjonóvica, 237  
Gjúrov Bunár, 240  
Glava, 189  
Glina, 192  
Glišić, 246  
Gliziani, 168  
Glyký, 156, 157, 159  
Gnoyna, 408  
Goats, 378  
Gogorítsa R., 291  
Gogovachka R., 292  
Göksheli, 251  
Gola, 408  
Gold, 38  
Golek Mts., 273  
Goléma R., 262, 270  
Golém Ísker R., 314,  
    317-318, 321, 322, 364  
Gólemosélo, 315  
Golésani: *see* Galishan  
Goléshevo, 310  
Golesnica Planina, 438  
Goltz, Von der, 27, 29  
Golyémo Konáre, 366  
Gomenítza, 162  
Gomonits, 324  
Gone-i-Todori, 410  
Gorandza, 172  
Goranóvtsi, 267  
Goritz (L. Prespa), 193  
Gorítza (nr. Georgiout-  
    zádes), 172  
Goritz (nr. Valóna), 184  
Gorni, Gornja: *see* un-  
    der specific name  
Gorníchevo, 229  
Górski Izvor, 368  
Gorublyáne, 321, 364  
Gostivar, 234, 237, 239,  
    243  
Gouñitza, 118, 129  
Gousgounari, 125  
Govedartsí, 314  
Gozdaraje, 192  
Grádec Planina, 256  
Gradeshka R., 436  
Graděšhnitsa, Han, 292  
Graděšnica, 227, 232  
Gradinf, 295  
Gradishta, 186, 187  
Gradishte, Málí, 356  
Gradište Planina, 262  
Grádobor, 249  
Grádoshor, 257  
Gradska R., 458  
Grádsko, 246, 422  
Gramáda, 274  
Gramatna, 408, 410  
Grammos Mts., 192  
Grand Vizier, 81, 82  
Granítza, 136  
Grava, 162  
Grava Bay, 176  
Grdelica, 441  
Grdelica defile, 441  
Greco-Turkish War  
    (1897), 11, 26-32  
Greece: administration,  
    77  
    communications, 16,  
    19  
    disease, 65  
    government, 76  
    history, 77  
    local government,  
    77  
    mountains, 11, 20  
    police, 77  
    railways, 417-419  
    sanitation, 67  
    supplies, 33  
    trade, 23  
    weights and mea-  
    sures, 86  
Greek Church, 73, 81,  
    385  
Greeks in Chalkídike,  
    381  
    in Macedonia, 73, 74  
Grevená, 21, 29, 30, 116,  
    133, 197, 199, 201,  
    218, 219  
Grevená, plain of, 29  
Grovenítiko R., 198, 199,  
    219  
Grevenó, 142, 150  
Greviá, plain of, 138  
Grikochóri, 162  
Grimitsi, 413  
Grléna, 273  
Grmeň, 192  
Gromóshkin, 403  
Grópa, 225  
Grúpsin, 238  
Gúdéli, 326  
Gujnóvci, 263  
Gulás, 204  
Gülimenli, 409  
Gümenje, 248, 434  
Gumuljína, 41, 42, 345-  
    347, 351, 353, 355-  
    358, 446, 467  
Gümüs Déré, 288  
Gunitza, 31  
Gurije: *see* Koritza  
Gurincet, 255  
Guri Prere Pass, 187  
Gusmari, 174  
Guvendikli: *see* Pod-  
    krépa  
Guvézne, 285  
Gyúeshevo, 267, 455  
Gyúrevo, 316

H

- Hadirfákli, 258, 261  
Hadjí Halar, 124  
Hádzarlar, 261, 440  
Hágia Anna monastery,  
    404  
Hágia Mamas, 395  
Hágia Marina, 25, 426  
Hágia Nikola, 153, 158  
Hágia Paráskeví, 397  
Hágia Sophia, 497  
Hágii Saranda: *see* Santi  
    Quaránta  
Hágion Oros: *see* Áthos  
Hágios Athanásios, 137  
Hágios Dimitrios, 109  
Hágios Dionísios, 396

- Hágios Elias Mt. (Epirus), 135, 136  
 Hágios Elias Mt. (Samothrace), 497  
 Hágios Georgios (Samothrace), 497  
 Hágios Georgios Cape : *see* Santo, Cape  
 Hágios Georgios monastery, 153, 204  
 Hágios Georgios Mt., 200  
 Hágios Iani monastery, 154  
 Hágios Nikolaós, 402  
 Hágios Nikolaós Island, 163  
 Hágios Pavlos, 396  
 Hágios Prodromos monastery, 391  
 Hágios Theodoros, 105  
 Hágios Vasilios, 324  
 Haidarli (nr. Avret Hisar), 250  
 Haidarli (Egri Bujak district), 197  
 Haji Bairamli, 412  
 Hajibáli, 395  
 Haji Býylik, 283, 444  
 Hajilar (nr. Gumuljina), 358  
 Hajilar (nr. Salonica), 411  
 Hajilari, 427  
 Haji Yanus, 442  
 Haji Zogu Han, 115  
 Haliacmon R. : *see* Vistrítza R.  
 Halmyros, 32, 429  
 Halvajiyas, 185  
 Hamadie, 499  
 Hamidi bridge, 178, 179  
 Hamzali, 279, 288, 411  
 Han (Inn) : *see under specific name*  
 Hanovet, 276  
 Hanyóti, 397  
 Haračina, 260, 264  
 Haremi, 299  
 Harílovo, 239  
 Harmanköi, 224  
 Harmánli, 368, 453  
 Hasanbégo, 264  
 Hasan Tatar, 125, 427  
 Háskovo, 42, 45, 46, 54-63, 348-350, 368, 453, 467  
 Hassan Beyut, Ura, 184-186  
 Hassánlar, 357  
 Hazel-nuts, 378  
 Házir, 333  
 Hebíbchevo, 352, 353, 356, 369, 453  
 Helládas R., 133  
 Hellenic (Larissa) Rly. Co., 418, 419  
 Herseg, 192  
 Hidirli, 247  
 Hilda Bay, 161  
 Hipsarion Mt., 498  
 Hirsova, 250, 408  
 Hisarlík, 124  
 Hójaköi, 354  
 Holeven, 231  
 Horse, 16  
 Hortách Mt., 372, 373, 378, 379  
 Hótular, 357  
 Hrankovácki R., 265  
 Hrupishta, 207  
 Hunikos, 326  
 Hurpeshte : *see* Hrupishta  
 Hustava, 312  
 Hvóina, 343
- I
- Ibrahimóvec, 259, 260  
 Ibrovo R., 242  
 Íbsala, 359, 360  
 Ice-making, 379  
 Igumenos, 384  
 Íkhtiman, 321, 322, 365, 451  
 Íkhtimánski Plánina, 322  
 Ilex, 379  
 Ilije Dère, 326, 338, 359, 407, 415, 416  
 Ilína R., 313  
 Ilissos R., 496  
 Ilissus R., 65  
 Imbros Island, 496  
 Indzhase, 335  
 Inikli, 408  
 Injéli, 355  
 Inova, 257  
 Ioanni : *see* Hágios Iani  
 Ionian Islands : weights and measures, 87  
 Ípcheli, 353  
 Ipek, 39  
 Irléti, 335  
 Iron, 310, 380  
 Isáklar, 349  
 Ishiklar (nr. Karastili), 248  
 Ishiklar (nr. Verria), 197  
 Ishikler, 349  
 Íshtib, 40, 244, 247, 258, 261, 262, 270-274, 437, 467  
 Ísi Yürén, 338  
 Isker R., 35, 451  
 Ismaili, 409, 411  
 Istibanja, 273  
 Istok R., 299  
 Itamos Mt., 134  
 Ithome : *see* Phanári  
 Ittisa Reef, 157  
 Iváncista, 242  
 Ivíron, 325, 326  
 Ivíron monastery, 397  
 Izbegli, 367  
 Izica Han, 242  
 Izvor, 242, 244, 268  
 Izvor R., 300  
 Izvórnou, 405  
 Izvórón, 374, 380, 381, 404, 405
- J
- Jablanica R., 441  
 Jakímova, 273  
 Jakova, 39  
 Jalovec, 242  
 Jáma Bístra range, 242  
 Jamalíga Han, 165  
 Jami, 286, 326  
 Jelelli, 197  
 Jélóva, 210  
 Jélóva R., 207, 208, 210  
 Jérisos : *see* Erisos  
 Jewish Church, 81  
 Jews, 80  
 Jijiler, 116, 197  
 Jinjo, 326  
 Joannina : *see* Yanina  
 Juma, 197

Juma'-i-Bala, 274, 281,  
293, 300, 425, 468  
Jumaya: *see* Juma'-i-  
Bala  
Juniper, 379  
Júzhno, 355

K

Kačanik, 39  
Kádiköi, 364, 369, 454  
Kádiköi: *see* Júzhno  
Kadinosélo, 260  
Kadiyévo, 309  
Kádrije, 286-288  
Kaidinar R., 439  
*Kaimakam*, 82, 382, 384  
Kájali, 253  
Kakarditza Mts., 148,  
205  
Kakavía, 167  
Kákavos Mt., 374, 375,  
380, 404  
Kakerachi, 499  
Kaki Skala, 164  
Kakosouli R.: *see under*  
Souli R.  
Kalabáka, 21, 30, 128,  
130, 131, 133, 142,  
146, 211-213, 215,  
216, 219, 430  
Kalamária, 381, 382,  
387  
Kalamas R., 162, 164,  
165, 168, 169  
Kalamítzi, 401  
Kalamúti, 335, 336  
Kalándra, Néa, 397  
Kalapódi, 212, 214  
Kalarat, 170, 174  
Kalarat Mt., 174  
Kalarrhýtai, 203, 204  
Kalarrhýtai R., 148  
Kalarrhýtinós R., 204,  
205  
Kálchovo, 334  
Kaldan: *see* Karitades  
Káldirköz, 360  
Kalendíni R., 141, 149  
Kalesiótikos R., 166, 169  
Kále Zir, 325  
Kalfani, 186  
Kalimánci, 273  
Kalimántsi, 310

Kalindár, 403, 404  
Kalishta, 457  
Kaliváki, Han, 168, 176,  
190-192  
Kalivia, 109  
Kalkándelen: *see* Té-  
tovo  
Kalkova, 255  
Kálkovo, 320, 365  
Káloron Oros, 388  
*Kaloyeroi*, 385  
Kalugriča, 257  
Kalvaki, 164  
*Kalyvia*, 398  
Kalyvia Skotinas: *see*  
Skotinas  
Kamara, 408  
Kamarína R., 157  
Kamariotis Bay, 497  
Kambérova Česma, 240  
Kámena, 283  
Kamendol, 243, 246  
Kámenets, 368  
Kameníča, 271  
Kamenítsa, 301  
Kámina, 403  
Kamnai, 145, 146  
Kanaláki, 157  
Kanáli, 157, 329  
Kanalía monastery, 111  
Kánastron C., 397  
Kánina, 231  
Kanzía, 155  
Kapákli Plánina, 296  
Kapátovo, 311  
Kapestitza: *see* Kapish-  
títza  
Kapinova, 187  
Kapishtítza, 207, 209  
Káplan, 259  
Kaplan L., 259  
Kapoutzides: *see* Ká-  
pujílár  
Kapsochóra, 397  
Kápujílár, 387  
Káraagách, 353, 425,  
454  
Káraagách: *see* Porto  
Lagos  
Kára Ali R., 299  
Kara Azmak, 195  
Kárabágh, 354  
Kára Baír Mts., 322, 452  
Kárabulák, 306

Kárabunár, 250, 359,  
361  
Káraburún, Cape, 395  
Kara Dagħ: *see* Krusa  
Balkans Mts.  
Kara Dagħ: *see* Mavro-  
vouni Mts.  
Kára Dère, 338, 339,  
341, 342  
Káradzali, 259  
Karaferia: *see* Véria  
Karahójali, 247  
Karáissi, 284  
Karaja Kadi, 249  
Karájaköi, 285, 412  
Karajalar, 195, 197  
Kára Jali, 364  
Kárákash, 352  
Káráköi, 297, 309  
Karakush Dagħ, 358  
Karalíbey, 161, 167  
Karalik Derveni: *see*  
Papapóúli  
Karamanda, Karaul,  
132  
Káram Karalik Tépe,  
350  
Karán Dere, 290  
Kára Ormerli, 414, 415  
Kára Ormán, 274  
Káráshán Dère, 349  
Karáshli: *see* Knyas  
Borisovo  
Karásköi, 293  
Kara Su (river): *see*  
Crna R.  
Kárasu bridge, 281, 282,  
289-291, 310, 311  
Karasu Chai: *see*  
Strúma  
Karasúli, 224, 247, 248,  
423, 433, 443  
Kára Tair, 308  
Kára Tépe, 388  
Karatzali, 126  
Karaul (blockhouse):  
*see under specific*  
*name*  
Kárávi, Cape, 397  
Karayusuf, 394  
Karbinci, 275  
Karbúnica, 236  
Kardamos Bay, 496  
Kárdia, 394, 396



- Kardítza, 133, 134, 137,  
 140, 141, 430  
 Kardzhali: *see* Kırjali  
 Karia, 27, 30  
 Karitades, 218  
 Karitza, 428  
 Karla L., 122  
 Karli Dagb, 210  
 Kárlovo, 367  
 Kárnobólya, 366  
 Karóumbalis R., 134  
 Karpenisi, 133, 135, 137  
 Kárvara, 302  
 Karvassarás, Han, 151  
 Karvela Mt., 140  
 Kárvouna, 396  
 Karyá, 111  
 Karyá, plain of, 110  
 Káryaes, 381, 382, 384,  
 403, 404  
 Kasádrino, 397  
 Kasáni, 113  
 Kashán, 358  
 Káshnitsa Hill, 301  
 Kasiadiari Mt., 429  
 Kasimítsa, 306  
 Kassandra: *see* Cas-  
 sándra  
 Kastana, Cape, 403  
 Kastaniá, Han, 116,  
 132  
 Kastaniá R., 146  
 Kastanya, 197  
 Kastoriá, 193, 198, 206–  
 209, 211, 469  
 Kastoriá L., 207, 208  
 Kastri, 148  
 Kastro, 138  
 Kastro (Imbros), 496  
 Kastro (Lemnos), 497  
 Kastro (Thasos), 499  
 Kastrosykiá, 157  
 Katafiyi, 107, 134  
 Kataphídi Mts., 148  
 Katavóthra, 138, 139  
 Kateríni, 26, 39, 103,  
 105–109, 111, 115,  
 195, 428  
 Kateríni Plain, 105  
 Katito R., 161  
 Kato Kalendíni, 137,  
 141, 149  
 Kátsi: *see* Kouúzi  
 Katsiká, 203
- Katunitsa: *see* Stani-  
 máka  
 Katúntsi, 310  
 Kavadar, 246  
 Kavalla, 41, 42, 46, 54–63,  
 328, 329, 330, 334, 469  
 Kávarjik R., 360  
 Kavashia, 195  
 Kayadzhik, 453  
 Káyajik, 389  
 Kayajik: *see* Kámenets  
 Kayajik Mándra Dére,  
 361  
 Kayalár, 211  
 Káyali: *see* Vérbitsa  
 Kaza, 82  
 Kazákköi, 360  
 Kazaklar, 113  
 Kazani, 194, 233  
 Kazanlyk, 45, 46, 54–63  
 Kazaveti, 499  
 Kázikli: *see* Kólets  
 Kechiler, 116  
 Kelizoni R., 186, 188  
*Kellion*, 383  
 Konali, 227, 228, 432  
 Kenouri, 161  
 Kephálóvrysi, 120, 220  
 Keramnítsa, 165  
 Kerasia, 134, 140  
 Kerásovo, Han, 153  
 Kerátia, 390  
 Keremidli (nr. Adriano-  
 ple): *see* Kiórmut  
 Keremidli (nr. Xánthi):  
*see* Kalamúti  
 Kerjalar, 430  
 Kermekli, 360  
 Kernól, 268, 295  
 Kerveni, 182, 190  
 Kesar, 182  
 Keshan, 360  
 Késhish Mándra, 312  
 Kesrie: *see* Kastoriá  
 Khámilo Voúni Mts., 380  
 Khanjas, 361  
 Khimara: *see* Chimára  
 Khimari Mts., 170  
 Kholomonda: *see* Cholo-  
 mónda  
 Kiaparo, 176  
 Kiári Plánina, 193  
 Kiévo, 422  
 Kilberini Mt., 151, 154
- Kililer, 122, 429  
 Kilindir, 251, 422, 433,  
 442  
 Kiliye, 401  
 Kílkiköi, 364  
 Kimirkálba, 404  
 Kinara, 498  
 Kiórmut, 353  
 Kipuryo, 199, 212, 214  
*Kiraji*, 388  
 Kirchevo: *see* Krčova  
 Kíriaki, 401  
 Kíríchín: *see* Kríchim  
 Kírjali, 339, 346, 348,  
 349, 352  
 Kirka, 446  
 Kirkgechid Pass: *see*  
 Sarandáporon Pass  
 Kirkit: *see* Kúrküt  
 Kírkitsa R., 292, 312  
 Kírvoli Mt., 146  
 Kisbarda, 179  
 Kisbarza: *see* Kisbarda  
 Kisiljaköi, 446  
 Kítka Mt., 271  
 Kitros, 105  
 Kitzok, Chafa, 189  
 Kizil Déli Chai, 362,  
 363, 449  
 Kizilje Köi, 345  
 Klabuchista, 229, 230,  
 232  
 Klečovec, 270  
 Klénovec, 242  
 Kléshtina, 232  
 Klinová R., 146  
 Klisali, 324, 414, 415  
 Klíseli (nr. Adrianople),  
 363  
 Klíseli (nr. Íshtib), 261  
 Klistós, 134  
 Klisúra, 176, 177  
 Klisúra R., 274, 317  
 Klokótitsa, 368  
 Klokotó, 130, 217  
 Kníssovo, 139, 140  
 Knyas Borísovo, 355  
 Knyázhevo, 269  
 Kočána, 40, 271, 272,  
 273, 274, 275  
 Kochágovo, 307  
 Kóchen, 305  
 Kocherínovo, 294, 313,  
 323



- Koja-Ahmedli, 198  
 Koja Dère, 434  
 Koja Su, 443  
 Kójlice, 260  
 Kokalyáne, 321  
 Kokkina, Cape, 499  
 Kólchak, 327  
 Kólets, 350  
 Kolitsko, 261  
 Kolonia : *see* Herseg  
 Koloniati, 203  
 Komano, 211  
 Komaryan bridge, 326, 413  
 Komátevo, 343  
 Kombóti, 135  
 Kometzádis, 151  
 Kóndofrei, 268  
 Koniskós, 216, 217  
 Konísti, 119  
 Konítza, 192, 194  
 Kónjari, Málí, 240  
 Kónjari, Veliki, 240  
 Kontovráchi, 204  
 Konushítsa R., 300  
 Kónyovo, 267  
 Konyóvska Plánina, 267  
 Kópač R., 236  
 Kopaïs, L., 66  
 Kópékköi, 357  
 Kópékli, 361  
 Kopilavtsi, 456  
 Koprísnica, 254, 255  
 Kopriva, 412  
 Kopriva bridge, 287, 412  
 Kópriven R., 277  
 Koprívlén, 332  
 Koprívshtitsa, 367  
 Kóprülü : *see* Velés  
 Koráka bridge, 138  
 Korbunar : *see* Délbok Izvor  
 Koritza, 21, 181, 186, 188, 190, 191, 206, 209, 470  
 Koritza Plain, 193  
 Korkutovo : *see* Kürküt  
 Kormos R., 168  
 Kornési, 144  
 Kórnitza, 299  
 Kosél, 233  
 Kosh Todori, 410  
 Kosmara, 165  
 Kosovo, 70  
 Kösse Mejid, 357, 446  
 Kóstenets, 323 ; *see also* Bánya-Kóstenets  
 Kostinbrod, 451  
 Kóstovo, 237  
 Kostúriño, 253  
 Kóte Han, 244  
 Kótori, 205  
 Kótsáki, 327  
 Kouífo, 401  
 Koukouleaés, 153  
 Kouraneyi Han, 131  
 Kournovo-Nezero, 426  
 Koutíka R., 223  
 Koutzi, 174  
 Koutzi, Han, 165  
 Kóutzóchiri, 129  
 Koutzoulío, 203  
 Koutzouphlani R., 131  
 Kouveltzi, 430  
 Kovachévtsi, 318  
 Kovánec, 254  
 Kózana : *see* Kózani  
 Kazani, 29, 39, 112, 116, 119, 195, 196, 197, 206, 210  
 Kozársko, 308  
 Kozichane, 451  
 Kozluja, 356  
 Kozyak, 194  
 Kraniá, 147  
 Kraniá R., 205  
 Krápa, 242  
 Krápets, 296  
 Krásnoovo, 367  
 Kratovo, 40, 262, 263, 270, 273  
 Kratóvska R., 262, 270  
 Krčova, 236, 238, 241, 242  
 Kremán, 404  
 Krémén Han, 298  
 Kremian, 228  
 Kremnitza R. : *see* Philotikos R.  
 Kríchana, 395  
 Kríchim, 306, 308, 309, 452  
 Kríchim R., 452  
 Kríchima R., 306, 308  
 Krínítsa, 217  
 Kristofor monastery, 231  
 Kritiádes, 212, 214  
 Krítzina, 153  
 Kríva R., 263, 264, 265, 266, 270  
 Kríva Lakaviča R., 247, 258  
 Kríva Réka, 304  
 Krívidol, 258  
 Krivogastáni, 241  
 Krivolak, 244, 246, 437  
 Krivtsi, 206  
 Kropishtí, 178  
 Krúmovo, 344  
 Krúpište, 272  
 Krúpnik, 292  
 Krusa Balkan Mts., 249, 283, 406, 407, 408, 410, 411, 443  
 Krúsevo, 235, 238, 239, 240, 241, 470  
 Krúshevo, 303, 309  
 Krushova, 410  
 Krúšije, 233  
 Krúška, 238  
 Krúška Plánina, 236  
 Krya Vrysi Han, 32  
 Kryésna bridge, 292  
 Kryésna defile, 292, 312  
 Kryésna R., 289  
 Kryonéri, 148  
 Krýonéro, 171, 174, 175  
 Kucháshla, 354  
 Kúch Han, 351  
 Kuchúk : *see* Kotsáki  
 Kuchuk Doganji, 358  
 Kuchuk Su, 446  
 Kučéino, 275  
 Kúdaros Lákos, 398  
 Kúklen, 344  
 Kúklísh, 253  
 Kukurečani, 234  
 Kúkush, 250, 251, 282, 283, 285, 408, 442  
 Kúla, 291  
 Kuleli Burgás, 362, 363, 449, 454  
 Kumani, 184, 186  
 Kumánovo, 39, 40, 260, 262, 265, 270, 420, 440, 455, 470  
 Kumárli, 353  
 Kumbazeto, 276  
 Kumuls Pass, 188

Kúnova, 237  
 Kurila Mts., 164  
 Kürküt, 410  
 Kurşumlje, 39  
 Kuru Chai, 331, 332,  
 338, 345, 446  
 Kuruchesme: *see* Górski  
 Izvor  
 Kúru Kebír, 337  
 Kurvingrad, 441  
 Kuryani, 185  
 Kúshbali, 247  
 Kúshi Kuvák, 346, 347  
 Kushkollu Mt., 278  
 Kusovítza, 148  
 Kustendil, 45, 46, 54-  
 63, 264, 267, 269, 294,  
 315, 456, 470  
 Kusu Bay, 496  
 Kyra Mt., 204

## L

Labanitzá, 107  
 Ládova, 242  
 Lágoch, 341  
 Láhana, 285, 412  
 Laisica: *see* Leshka  
 Lakiótikos R., 156, 159  
 Lakovíkia, 327  
 Lamía, 25, 32, 123, 126,  
 137, 418, 426, 471  
 Lanari: *see* Kara Tépe  
 Langada: *see* Lángaza  
 Langadikia: *see* Láng-  
 avuk  
 Lángavuk, 324, 415  
 Lángaza, 285, 381, 382,  
 413-415  
 Lángaza L., 324, 370,  
 371, 386, 406, 413, 415  
 Laniver, 195  
 Lanja L., 407  
 Lánjik-Lakos, R., 372,  
 375, 376  
 Lapsísta, 198, 206  
 Lapsísta L.: *see* Astaka  
 L.  
 Lapsísta Plain, 169  
 Larigovo Déresi, 391  
 Laríkovi, 381, 391  
 Laríkovi Mt.: *see*  
 Cholomónda Mts.

Lárisa, 31, 103, 113,  
 114, 117, 118, 120-  
 124, 128, 129, 133,  
 201, 418, 419, 427,  
 429, 471  
 Larissa, plain of, 26  
 Lates: *see* Liattes  
 Latomion, 428  
 Látrovo, 290  
 Lavdarit Proni, 189  
 Lávra, 384  
 Lávra, Cape, 404  
 Lazarades, 218  
 Lazarat: *see* Lazarades  
 Lazarbouga, 429  
 Lazec, 230, 232  
 Lázhene, 367  
 Lead, 380  
 Lébovitse, 311  
 Léfka, Han, 203  
 Leftera, 328  
 Leftherochóri, 164, 428  
 Leftokaryá, 27, 30, 105,  
 110, 111, 165, 428  
 Leftokaryás, Skala, 105  
 Léki, 310  
 Lelovo, 410  
 Lemnos I., 496  
 Lénovo, 344  
 Lepenác R., 238  
 Lepenítza, 205  
 Lepopélei, 272  
 Leren: *see* Flórina  
 Leshka, 173  
 Leshníkovo, 355, 356  
 Leskova, 186-188  
 Léskovac, 39, 265, 420,  
 441  
 Leskovéc Pass, 233  
 Leskoviki, 192  
 Levani, 184  
 Lévnitsa R., 267, 455,  
 456  
 Lianokladi, 418, 426  
 Liaskovo, 139, 140, 144  
 Liattes, 175  
 Libánovo, 106  
 Liblak: *see* Planitsa  
 Libókhovo, 180, 181  
 Lija R., 306, 339, 340  
 Likován, 285, 412  
 Likován Dére, 285  
 Limena, 498  
 Limestone, 10, 17

Limni: *see* Lemnos  
 Lióprason, 217  
 Lipianá, 148  
 Lípovdol, 258  
 Lípsasa, 405  
 Lisari, 155  
 Lise: *see* Elésh  
 Lisičáni, 242  
 Lisfiska R., 274  
 Litochóri, 105, 428  
 Livádi, 106-109, 373  
 Livadia, 418  
 Livanovo, 428  
 Livítziko, 138  
 Livínovo, 291  
 Livy, 19  
 Logara Pass, 170, 175  
 London, Treaty of, 72  
 Lóngos, peninsula of,  
 370, 372, 375, 379,  
 380, 382, 400  
 Lóngos Mts., 376  
 Longovítza R., 165  
 Lopátice, 234  
 Losfáki Mt.: *see* Akro-  
 tiri Mt.  
 Louros Mikro, 155-157  
 Louros R., 155, 156  
 Loutra, 387  
 Lózen, 356  
 Lózen, Górnýi, 320  
 Lózhene (nr. Tatar Bá-  
 zarjik), 302, 323  
 Lózhene (nr. Banyá),  
 301  
 Lózhista, 285, 410  
 Luboňa, 182  
 Lúda Yána R., 366  
 Lukóvica, 237  
 Lúkov, 170  
 Lúkov Vrh Mts., 274  
 Lungáki, 217  
 Lunjik-Lakos R., 389,  
 394  
 Lúshin Han, 298  
 Lutziki, 324  
 Lyálovo, 297, 310  
 Lyéshnitsa, 291  
 Lykos bridge, 165  
 Lykostómo, Han, 169,  
 191  
 Lykúresi, 148  
 Lyuari, 185  
 Lyubanishta, 193

- Lyúbche, 305, 306  
 Lyubimets : *see* Hebibevo  
 Lyulin Planina, 457  
 Lyumi (River) : *see* under specific name  
 Lyumnitsa R., 435
- M
- Macedonia :  
   climate, 43, 49, 64  
   communications, 13, 15, 21, 35, 36, 42  
   disease, 64  
   education, 75  
   forests, 12  
   history, 34, 35, 69, 70  
   hygiene, 67  
   language, 75  
   mountains, 10, 24, 35  
   physical geography, 9, 34, 36  
   plain, 13, 133  
   population, 72  
   railways, 37  
   rainfall, 14  
   religion, 73  
   rivers, 13  
   temperature, 47
- Machukovo, 248  
 Mačovo, 277, 278  
 Máden R., 257  
 Madenochória, 380, 381, 382  
 Mádžarlik, 260  
 Magárevo, 233  
 Magóula, 119, 120, 217  
 Mahála, Dólnyi, 274  
 Mahmudi, 413  
 Mahmúdli, 355  
 Maimodli, 122  
 Maize, 378  
 Majadag, 248  
 Makreš, 265  
 Makreški R., 265  
 Makri, 41, 356, 357  
 Makrihori, 427  
 Mála R., 242  
 Malakási, 205  
 Malakási, Han, 132, 133
- Malakstra hills, 184  
 Malanovska, 456  
 Malaria, 65  
 Malathrea, Cape, 497  
 Malathriá, 105  
 Malés Planina, 279  
 Malian Gulf, 9, 25  
 Málineo, 261  
 Malinóvski R., 261  
 Malitza R., 165  
 Malketz, 178  
 Málkosélo, 315  
 Malyidushku Mts. : *see* Mavrovouni Mts.  
 Mándra (Chalkídike), 386, 395, 398  
 Mándra (nr. Demótika), 359, 361  
 Mándra (nr. Háskovo), 349  
 Manganese, 380  
 Mangúf, 354  
 Mankov : *see* Mangúf  
 Manóle, 367  
 Maráš, 353  
 Marble, 380  
 Márena, 246  
 Margaríti, 160, 162, 163  
 Mariánska Planina, 254, 435  
 Maries, 499  
 Marítsa R., 35, 300-302, 307, 309, 322, 324, 353-356, 358, 360-363, 367, 368, 449, 452-454  
 Marítsa, plain of, 366  
 Márkovo, 343  
 Marmaliaga, 178  
 Márnopole, 291, 297, 310  
 Maronite Church, 81  
 Maroniya, 41, 357, 358  
 Martinica, 266  
 Martiniskó, 144  
 Martolosi, 178  
 Marúleva, 305  
 Maslar, 416  
 Máti R., 114  
 Matzóúki, 148  
 Matzóúki R., 147  
 Mavréli, 213, 215, 216  
 Mavroneró R., 105  
 Mávrovo, 208  
 Mávrovo L., 415
- Mavrovouni Mts., 31, 32, 122, 127, 191  
 Mazarachevo, 456  
 Mázhdel Déresi, 333  
 Mazujeiste, 241  
 Méchkul, 292  
 Mediterranean Sea : climate, 44, 50  
 Megali Kastania, 134  
 Megali Vilya, 389  
 Megalo Vrysi, 426  
 Mégdovas R., 133, 134, 136, 140  
 Mehómia : *see* Razlog  
 Mekes, 413, 414  
 Meliana, 151  
 Melíchovo, 153  
 Melissopetra, 192  
 Melissourgí, 142, 148, 149  
 Melissourgí R., 149  
 Mělník, 311, 472  
 Melnisha R., 291  
 Meltemi, 50  
 Melouna Pass, 28, 31  
 Menéke, Ashági, 355  
 Menéke, Yukári, 355  
 Mentesheli, 224  
 Merhumli Mt., 449  
 Meritza, 212  
 Merkhamla Mt., 360  
 Mertzi, 430  
 Mesaria, 192  
 Mesiméri, 393, 394  
 Messiafor Han, 176, 189, 192, 194  
 Města R. : *see* Myěsta  
 Mestánla, 347, 352  
 Metéora monasteries, 131, 430  
 Meteorological stations, 45  
*Metochion*, 401  
 Metzovítiko R., 201, 202  
 Metzovo, 21, 30, 131, 199-202, 205, 473  
 Metzovo Pass, 21, 128, 132, 146, 201  
 Michalítzi, 155  
 Michalítzi hill, 157  
 Michikéli Mts., 169  
 Mifoli, 184  
 Mikros, 196  
 Mikro Valtos, 218

- Mikroyannis, 105  
 Miletkova, 255  
 Miliá, 200, 201  
 Miliá R., 200, 201  
 Miliáda R., 372, 398  
 Milianá, 138  
 Milias, Han, 109  
 Mílovo, 39, 106  
 Minina, 164  
 Miokázi, 242  
 Mirova, 411, 412  
 Miróvce, 251, 252, 255, 435  
 Mirysi, 136  
 Mitrovica, 39, 439  
 Mládo, 265  
 Mlamólovo, 315  
 Moglena Hills, 224, 225  
 Moglena R., 225  
 Moglenitsa R., 225  
 Mogórcce, 242  
 Mohajír Köi, 359  
 Mohamed the Conqueror, 80  
 Mohammedans, 75, 386  
 Molentziko, 144  
 Mólivopórgos, 380, 398  
 Mologoústa, 118, 119, 120, 220  
 Mómína Klisúra, 323  
 Monastir, 36, 39, 46, 54-63, 193, 194, 211, 223, 226, 227, 230, 231, 233, 234, 239, 244, 382, 419, 422, 432, 472  
 Monastir, plain of, 35, 227, 244, 432  
 Monastiráki, 136  
 Monastirec, 242  
 Monúhi, 325  
 Morava R., 35, 440, 441  
 Morfáti, 160  
 Moróзда, 275  
 Móshino, 268  
 Moskopolye, 186, 188  
 Mosquitoes, 65  
 Moucha, 134  
 Mourgáni, Han, 131, 133  
 Mourgáni R., 131, 212, 214, 215, 216  
 Mourzí, 161  
 Mourzo, 162  
 Mouskiótitzá ravine : *see* Steno gorge  
 Moutiakáti, 157  
 Moutzára R., 150  
 Mouzaikos R., 139  
 Mouzáki, 134, 137, 139, 140, 141, 143  
 Mouzáki Pass, 139  
 Mouzáki R., 141  
 Mouzína, Han, 167  
 Mozzal, 411  
 Mralíno, 260  
 Mramoríca, Han, 235  
 Mramoríca R., 235  
 Mrzénci, 254, 255, 435  
 Mudir, 82  
 Mudros, 497  
 Mudros Bay, 496  
 Múkrösh, 332  
 Mulberries, 378  
 Mule, 16  
 Múrgaş, 235  
 Murzína, Han : *see* Mouzína, Han  
 Músi Bey, 268, 295  
 Músomishta, 297  
 Musrátla, 331, 422, 445  
 Mústafa Pásha, 352, 355, 369, 454  
 Mutessarif, 82  
 Mútnitsa R., 297, 301, 332  
 Muzakya Plain, 184, 185  
 Müzderek, 410  
 Myésta R., 40, 42, 298-303, 310, 311, 333-335, 422, 445  
 Myriófyton, 394, 398  
 Mytika, 156  
  
 N  
 Nahıyyas, 82  
 Nalbándkői, 211  
 Nalbándkői R., 211  
 Nárla, 345  
 Narli, 446  
 Náryechen, 344  
 Náspitsa R., 331  
 Navarino : climate, 65, 66  
 Ndrenova, 183  
 Nea (new) : *see under specific name*  
 Neágush : *see* Nyaoústa  
 Neágush Mt. : *see* Vermion Mt.  
 Nebegler, 124  
 Negochani, 223, 229  
 Negórci, 254, 255  
 Négotin, 246, 437  
 Négovan : *see* Likován  
 Négrevo, 279  
 Nejévler, 390, 392  
 Nekolek, 193  
 Neochóri (nr. Servia), 107  
 Neochóri (nr. Tríkkala), 134, 217  
 Neochorotiko R., 130, 217  
 Nerádes Han, 168, 191  
 Nerómyto, 397  
 Nessonis Marsh, 104  
 Nestorian Church, 81  
 Nevestino, 273, 276, 277  
 Névrekop R., 444  
 Névrokop, 291, 297, 298, 300, 303, 305, 312, 332, 473  
 Nevrópolis, 139  
 Nevrópolis Plain, 140  
 Nezeró, 112  
 Nezeró L., 27, 112, 126, 426  
 Nezeró Plain, 112  
 Nicolítzi, 163  
 Niger, Cape, 496  
 Nigrita, 326, 414-416  
 Nije Koshuf R. : *see* Moglena R.  
 Nikítas, 399, 401  
 Nikolaos Bay, 496  
 Nikolaos, Cape, 397  
 Nish, 39, 441, 450  
 Nishava gorge, 450  
 Nishava R., 450  
 Nisia Voda R., 226, 227  
 Nisi Dag, 228  
 Níveros : *see* Ivíron  
 Nívitza, 173, 174  
 Nívitza Bubarit, 170  
 Niyakova, 221  
 Nomarch, 77  
 Novak, 227, 230  
 Nova Zagora, 453  
 Novibazar, 39  
 Novichanska R., 278  
 Nóvi Han, 320, 365



Novočani, 259  
 Novosela, 184  
 Nóvosélo (nr. Philippópolis), 308  
 Nóvosélo (nr. Ŭsküb), 239, 247, 265, 267, 438, 439  
 Nóvosélo : *see* Yéniköi (nr. Strúmitsa)  
 Novoséltsi, 365, 451  
 Nusretli : *see* Musrátla  
 Nyaoústa, 221, 223, 431, 473

O

Oak, 12, 374, 379  
 Obá, 118  
 Obalar : *see* Moh jír Kói  
 Óbidim, 298  
 Oblávci, 265  
 Obléševo, 272  
 Obsírina, 232  
 Ochri : *see* Óchrida  
 Óchrida, 36, 233, 236, 474  
 Óchrida L., 193, 233, 234  
 Ochusha R., 452  
 Odrin : *see* Adrianople  
 Oëta Tunnel, 418  
 Ográzhdén Plánina, 279  
 Ókchilar, 335, 336, 445  
 Ola Kúlbeleri, 312  
 Óleander, 374  
 Ólina R., 258  
 Olives, 378  
 Ólu Dère, 349, 350, 368  
 Olympus Mt., 24, 27, 28, 104, 112, 373, 428  
 Olytzika, 159  
 Omer Bey, 363  
 Onions, 66  
 Onochonos R., 125  
 Opanci : *see* Opéinca  
 Opéinca, 233  
 Opínca R., 233  
 Órašac, 262  
 Órašica R., 262  
 Oreovista, 248  
 Órfano, 360, 386  
 Órfano, Gulf of : *see* Rendina, Gulf of

Orizar, 255  
 Órizar, Górnji, 234  
 Órlánci, 264  
 Órlovo, 349  
 Orlyako Bridge, 286, 288  
 Ormánli, 253  
 Orman Magoula, 429  
 Orména Mt., 399  
 Ormília, 380, 381, 398  
 Óros Megáli Vilya, 393  
 Orphana, 427  
 Orla R., 261  
 Orso Cove, 491  
 Órta Han, 344  
 Órtaköi, 351, 352, 362, 363, 364  
 Orthodox Church, 74  
 Oryá Mt., 213  
 Oryashets : *see* Kozluja  
 Oseno R., 299, 300  
 Osina, 305  
 Osmanie : *see* Pehčevo  
 Osmanli, 127  
 Osogóvska Plánina, 267, 272  
 Ósoj, 242  
 Osso, Mt., 24, 27, 373, 428  
 Ostanítza, 192, 194  
 Ostima, 210  
 Ostrelce, 235  
 Óstrovo, 36, 39, 131, 211, 212, 228, 431  
 Óstrovo L., 211, 228, 229, 432  
 Osum R., 182, 186, 187, 190  
 Otelis : *see* Fotólivo  
 Othrys Mts., 25, 32, 122, 125, 127, 426  
 Otoligos : *see* Fotólivo  
 Ovchártsi, 316  
 Oxya Pass, 139, 140  
 Oyanik, 187

P

Padálista, 236  
 Padálista, Han, 234, 237  
 Padálista, R., 236, 237  
 Paganía, 161  
 Paganía, Cape, 161  
 Pakchi Kuliba, 386  
 Palakáriya R., 318, 319

Palamas, 126  
 Palánka, 366  
 Palása, 175  
 Palátovo, 366  
 Palázli, 346  
 Palea (old) : *see under specific name*  
 Palehora : *see* Gnoyna  
 Paleochóri, 391  
 Paleochóri, Han, 204  
 Paleochóri R., 146  
 Paleokarya, 143  
 Paleókastro, 120  
 Paleopoli, 497  
 Palermo, Fort, 176  
 Palermo Point, 176  
 Palihor, 195  
 Palioúri, 380, 397  
 Palioúri, Cape, 397  
 Panagía (Epirus), 153  
 Panagía (Ímbros), 496  
 Panagía (Thasos), 498  
 Panagía tes Portas : church, 143  
 Panareti, 206  
 Pancharevo, 321  
 Pandakli : *see* Leshnikovo  
 Pandánassa, 154  
 Panéts R., 331  
 Pantaloni, Karaul, 200  
 Panteleímon : *see* Ros-sikón  
 Pantokrator, 385  
 Papa L., 311  
 Papapouli, 104, 428  
 Papáskoi (Bulgaria), 352, 353, 355, 369  
 Papáskoi (Greece), 333  
 Papazlii, 367, 453  
 Paprat, 411  
 Paramythia, 156, 158, 160, 163, 164  
 Paraskeví, 215  
 Pardovica, 255  
 Pardovitsa, 435  
 Pardovitsa R., 254  
 Párga, 158, 160, 163, 475  
 Paril, 310  
 Parthenóna, 401  
 Pasarél, Dólnyi, 320  
 Pasarél, Gornyi, 320  
 Pasha, 81



- Pashaköi: *see* Voyó-dovo  
 Pashala, 360  
 Pashmakla: *see* Pash-mákli  
 Pashmákli, 337, 339-342  
 Pástra, 313  
 Patamash Mt., 200  
 Pataros, 408  
 Pateli, 229, 432  
 Patiópoulon, 135  
 Patrik, 326  
 Pavlos monastery, 404  
 Payani, 172  
 Pazarákia, 397  
 Pazárkia, 284, 324, 325, 379, 381, 382  
 Pazarli, 108  
 Pázarli Dère, 304  
 Péinja R., 259, 261, 262, 265, 270  
 Pečenjevec, 441  
 Péhcevo, 273, 277-280, 291, 292  
 Pehčévka R., 278  
 Pelion, Mt., 24, 122, 428  
 Pella spring, 224, 225  
 Peneus R.: *see* Salam-vria R.  
 Pentamylis R.: *see* Sophaditikos R.  
 Pente Adelfia Pass, 138  
 Pentepigádia, 151  
 Pergadikia, 399  
 Périn, 311  
 Peristéri, 205  
 Perlepe: *see* Prlíp  
 Pérník, 268, 425, 457  
 Pérperik Dère, 349, 350  
 Persefi, 127  
 Persoufi, 429  
 Pertóri, 119, 217  
 Pertúli, 132, 145  
 Perúshitsa, 309  
 Peshtan Mt., 184  
 Péshtera, 302, 305, 306, 308  
 Peshtyan, 187  
 Pestia, 151  
 Péstrica, 243, 245, 246  
 Péta monastery, 137  
 Petkovo, 410  
 Petra (ruins), 109  
 Pétralič, 279  
 Petrani, 177  
 Pétrich, 278, 281, 282, 291, 292  
 Petrílu, 136, 140  
 Petrovo, 248, 254, 310  
 Petrskod, 211, 229, 432  
 Petziáli, 168, 191  
 Phanári, 139, 430  
 Phanári-Magoula, 430  
 Phanári, plain of, 157  
 Phanariótikos R., 157  
 Pharsalos: *see* Phérsala  
 Phengari Mt., 497  
 Phérsala, 28, 31-33, 122-127, 429  
 Phersaliti R., 124, 127, 429  
 Philátaes, 163-165  
 Philippi, 331  
 Philippiada, 152, 154, 155  
 Philippópolis, 35, 42, 45, 46, 54-63, 306, 309, 341-344, 364, 366, 452, 475  
 Philippópolis, plain of, 343  
 Philotikos R., 164  
 Phíniki, 167  
 Phlambourési, 215, 216  
 Phlambouron Mt., 213  
 Phloresei, 141  
 Phonias R., 497  
 Phoúrka (Chalkídike), 397  
 Phourka (Thessaly), 126  
 Phoúrka Pass, 32, 126  
 Phourná, 133  
 Phtéri, 148  
 Phthiotis district, 426  
 Phyli, 219  
 Pigádia, 135  
 Pigs, 378  
 Pije: *see* Apidia  
 Pikérni, 170, 176  
 Pilávtepe Hills, 258  
 Pilávtepe Pass, 428  
 Pilyuri, 174  
 Pinákia, 393-396, 398  
 Pindus Mts., 20, 21, 22, 24, 32, 35, 133, 137, 200  
 Pine, 12, 379  
 Piniari, 219  
 Piraeus, 418  
 Pírdop, 366  
 Pírnovali, 411  
 Pirokas, Cape: *see* Pyrgos, Cape  
 Pirot, 450  
 Piskupi bridge, 178, 179  
 Pisodéri, 208, 210, 232  
 Pistúsha, 309  
 Pitzari, 181, 182  
 Pláčkovica Planina, 256, 271  
 Plane, 12  
 Planitsa, 410  
 Plashnikut, Proni, 182, 183  
 Platamóna, 28, 104, 428  
 Platanórrhevmá R., 149  
 Plataria, 162  
 Plataria Bay, 162  
 Pláti, 39, 103, 106, 428, 431  
 Pláti, Cape, 404  
 Plaush Planina, 252  
 Plétvar, 243, 245  
 Plétvar Pass, 245  
 Pleurisy, 64  
 Plévna, 331, 451, 367  
 Plíouri, R., 430  
 Plovdiv: *see* Philippópolis  
 Plums, 378  
 Plyasa, 193  
 Póbijen, 271  
 Póbit Kamik Han, 365  
 Póbit-Kasnik viaduct, 451  
 Pobrati, 184, 186  
 Podareš, 277, 278  
 Podkrépa, 368  
 Podmólje, 234  
 Poliana, 144  
 Polyana, 174  
 Polyáni, 226  
 Polyánis: *see* Dóiran  
 Polybius, 19  
 Polychrono, 397  
 Polygyros, 40, 380-382, 386, 387, 389, 390, 392  
 Pomak Bulgars, 41  
 Pomegranates, 378

- Ponikova R., 303, 306  
 Pópchevo, 250, 255, 256  
 Poplars, 379  
 Pópova Shápka Mt., 313, 314  
 Popovyáne, 318  
 Porna, 286, 327, 444  
 Póroi, 422, 443  
 Póroi, Górnýi, 283  
 Poropólje Plánina, 118, 242  
 Porta R., 143  
 Portaikos R., 143  
 Porta Pazári, 143, 145  
 Portaria, 394  
 Port Mourzo, 163  
 Pórtó Lágos, 336, 337, 346, 476  
 Porto Pazári, 22, 128, 144  
 Porto Phanári, 157  
 Port Palermo, 176  
 Port San Giovanni, 475  
 Potamia Bay, 498  
 Potamouli R., 104, 428  
 Potidsea : *see* Pinákia  
 Poto, 499  
 Pourlia, 428  
 Pournari, 387  
 Prámanta, 142, 146-149, 204  
 Pramoritza R., 206  
 Právishta, 328, 329  
 Preméti, 177, 179, 180, 189, 192  
 Prepolac, 39  
 Preševo : *see* Preshovo  
 Preshovo, 420, 440  
 Préspa L., 193, 231, 233  
 Preveni, 179  
 Prévesa, 9, 21, 24, 152, 154-156, 476  
 Prevts Mt., 193  
 Pribilci, 235, 239  
 Priboj, 441  
 Prílip, 39, 225, 234, 240, 241, 243, 244, 422, 478  
 Prísat, 243  
 Príština, 39  
 Prízrend, 39, 243  
 Problaka, 375  
 Problaka Bay, 403  
*Proedros*, 384  
 Proni (stream) : *see* *under specific name*  
 Proniki, 171  
 Prósenik, 290, 444  
 Prosgóli, 202  
 Prosgóli Mts., 204  
 Prostránska Plánina, 236  
 Protestant Church, 81  
 Protópapa, 186, 188  
 Provalénitsa, 318  
 Provista, 327  
 Pryídel Han, 299  
 Pryerna, 125  
 Pteri Mts., 136  
 Pulcha Hills, 201  
 Pulyovo, 290  
 Pumpkin, 378  
 Purnia B., 496  
 Pustaréka, 239  
 Pyrgeto, 428  
 Pyrgos, 496  
 Pyrgos : *see* Kále Zir  
 Pyrgos, Cape, 498  
 Pyrrha, 142, 145  
 Pyrrha R., 143, 145, 147  

Q

 Quartz, 380  
 Quinces, 378  
 Quinine, 66  

R

 Ráblovo R., 299, 300  
 Rábrovo, 252, 253  
 Radícevo, 257  
 Rádika R., 242, 243  
 Radíle, 283, 289  
 Radílovo, 307  
 Rádómír, 264, 267, 268, 295, 317, 318, 424, 425, 457  
 Rádovišta, 256, 278, 281  
 Rádovišta R., 257  
 Ragusa, 46  
 Rahmanli, 408  
 Rahova, 189  
 Raikovo, 339, 342  
 Railways, 417-458  
 Rainfall, 18, 49  
 Rajdavista, 456  
 Rájec, 245  
 Rakitnice, 239  
 Rakítovo, 301, 304  
 Rákova, 327  
 Rákova R., 229, 232  
 Rákovita, Górnýi, 318  
 Rákovitsa R., 312  
 Rajla, 420  
 Ramánovce, 260  
 Rapes, 227  
 Raštáni, 234  
 Rastovice, 239  
 Ratavica, 263  
 Raveni, 165  
 Ravénikia, 390, 391  
 Ravna, 412  
 Rayanovo, 410  
 Razgrad, 91  
 Rázlog, 297, 299, 311, 312  
 Razmetanitsa R., 315  
 Rechia Cove, 499  
 Rechítsa R., 276, 277  
 Rélyovo, 319  
 Réndina Bogházi R., 325, 405  
 Réndina, Gulf of, 325, 386, 406  
 Réndina R., 405, 416  
 Resétnik Dére, 389, 393  
 Resetníkia, 386, 389, 390, 392, 393  
 Reshani, 195  
 Résna, 233  
 Reveni Pass, 31, 118  
 Rhapsáni, 27, 104, 111  
 Rhapsista, 140, 152, 158  
 Rhendína, 133  
 Rhiniássa, 157  
 Rhodope Mts., 40, 41, 43, 45, 339, 343, 348  
 Ribnik, 247  
 Rice, 378  
 Rich, 255  
 Richa Bay, 401  
 Richa, Cape, 401  
 Ríla, 294, 313  
 Rílevo, 239  
 Rílska R., 294, 313, 314  
 Rílski Monastir, 45, 46, 54-63, 313  
 Risova, 226  
 Ritzianá, 138  
 Riza L., 167

Rizi R., 125  
 Rizómylo, 122, 127  
 Rízovo, 223  
 Road-making, 17  
 Rodósto, 360  
 Rogi, 155  
 Rogova, 39  
 Romanati : *see* Romanó  
 Roman Catholic Church,  
   75, 81  
 Romanó, 159, 160  
 Ropótovo, 241  
 Roskovets, 186  
 Rósomán, 246  
 Rossikón monastery,  
   383, 386, 397  
 Rothethurm Pass, 38  
 Roula, 210  
 Roumanians, in Mace-  
   donia, 73  
 Roumelia, 34  
 Roumelian Plain, 43-45,  
   47-49, 51, 52  
 Rousou, 134  
 Rúdnik, 208  
 Rúdnik L., 207, 208  
 Rugince-Derbénd, 265  
 Rum, 70  
 Rumni, 410  
 Rumsarat Dére, 394  
 Rupél, 291  
 Rupél Pass, 282, 286,  
   290  
 Ruschuk, 91, 451  
 Rušináčki stream, 265  
 Rusjáci, 242  
 Russia, 72  
 Russians, in Chalkídike,  
   381, 385  
 Russiko, 396  
 Ryesilovo, 316

## S

Sabasi, 124  
 Sabhand Dagħ, 40  
 Sádovo (nr. Névrokop),  
   332  
 Sádovo (nr. Stanimáka),  
   453  
 Ságirlar, 356  
 Saidpashas, Han, 132  
 Sakaréti, 135  
 Sakuleva R., 228, 229

Salachóra, 150, 154,  
   155  
 Salamánli, 249, 250,  
   442  
 Salamvria R., 21, 25-27,  
   30, 31, 103, 104, 113,  
   118, 120, 129-132,  
   140, 144, 145, 211,  
   212, 427, 430  
 Salatovra Mt., 200  
 Salihli, 410  
 Salíyski Chiftlik, 294  
 Salónica, 9, 25, 34-36,  
   39, 46, 47, 49, 54-63,  
   103, 106, 195, 223,  
   247, 249, 284, 324,  
   378, 386, 387, 406,  
   407, 409, 411, 412,  
   419, 420, 422, 428,  
   430, 433, 442, 478  
 Salónica, Gulf of, 224  
 Salónica, plain of, 106,  
   252  
 Salónica, vilayet of, 382  
 Salónica-Dédeagach  
   Railway, 37, 422  
 Sáltiköi, 361  
 Sámokov, 45, 46, 54-63,  
   294, 295, 313, 314,  
   317, 319, 321, 322,  
   365, 483  
 Sámokov, Dólnyi, 296  
 Samoránovo, 316  
 Samorina R., 431  
 Samothrace I., 497  
 Samothraki : *see* Samo-  
   thrace  
 San Stefano, Treaty of,  
   69, 73  
 Santi Quaránta, 21, 22,  
   161, 166, 169, 172,  
   175, 176, 191, 484  
 Santo, Cape, 402  
 Santo Demetrio Bay :  
   *see* Grava  
 Sapárevo, 316  
 Saráchli, 284  
 Saraháasar, 352  
 Sárája Mésina, 346  
 Sárambey, 302, 323, 452  
 Sarandáporon Han, 116  
 Sarandáporon Pass, 29,  
   30, 107, 108, 115, 116,  
   196, 218  
 Sarandáporos R., 108,  
   115, 119, 134, 176,  
   177, 192, 220  
 Sarandinovo, 241  
 Saránla, 360  
 Saranyovo : *see* Sárám-  
   bey  
 Sari Göl, 29, 116, 196,  
   197, 222  
 Sarigöl station, 250, 422,  
   442  
 Sári Hámzali, 258  
 Sarihanlar, 198  
 Sariköi, 408, 410  
 Sarimése, 260, 265  
 Sárishaban, 335, 336  
 Sariyar, 413  
 Sarkhánla, 361  
 Sarmusakli, 286  
 Sárnich, 352  
 Sarti, 401  
 Saseno Island, 491  
 Sateska R., 236  
 Satovítsa, 302, 303  
 Sávvyak, 290  
 Sayáda Bay, 156, 161,  
   162, 163, 165, 166  
 Sáz Dére, 292  
 Schorétzana, 148  
 Scutari, 46, 54-63  
 Seánsko, 236  
 Seden Mts., 238  
 Séderli, 353  
 Sédes, 387  
 Sehova, 435  
 Seimen, 453  
 Seiménli, 361  
 Selaitza, 192  
 Selanik : *see* Salónica  
 Selečka Plánina, 230  
 Sélimli, 251  
 Selim, Sultan, 80  
 Selinitza, 182, 183  
 Selishti, 183  
 Sel, Ura, 183  
 Semadrek : *see* Samo-  
   thrace  
 Semaltos, 327  
 Semeni R., 185, 186  
 Sémer Alan, 304  
 Sémévchi, Górnvi, 277  
 Sémikhcha : *see* Klokót-  
   nitsa  
 Seminfste Han, 238

- Šemnica R., 230, 234,  
     240  
 Sendil, 225  
 Sēnitza, 172  
 Seperi, 180  
 Serai Kōi, 363  
 Serakli, 282, 283, 409  
 Serbia :  
     climate, 43, 45  
     communications, 29  
     history, 69, 72  
     money, weights and  
         measures, 88, 89  
     railways, 419-422  
 Serbian Church, 73  
 Serbs in Macedonia, 73  
 Serchili, 410  
 Serēs, 37, 41, 42, 283,  
     286, 287, 289, 296,  
     326, 406, 444, 484  
 Serēs (nr. Agnanta), 148  
 Serēs, plain of, 285  
 Serfiĵe : *see* Servia  
 Sermenli R., 435  
 Sermyle, 398  
 Serres : *see* Serēs  
 Sersemli, 408  
 Servia, 103, 107-109,  
     116-118, 218, 485  
 Sesame, 378  
 Sēstrimo, 323, 452  
 Sevaster : *see* Stevaster  
 Seytan Dère, 292, 312  
 Shakhin, 338  
 Shāminji, 363  
 Shāmli, 224, 249  
 Sharlija Mts., 289, 444.  
 Shatista, 198  
 Shatista R., 198  
 Sheep, 378  
 Sheikhulislam, 81, 82  
 Shēitan Kula, 236  
 Shinarli R., 429  
 Shipcha, 332  
 Shipochāne, 323  
 Shiroka Lēka, 340, 341  
 Shiroka Poliana, 350  
 Shirokidol, 319  
 Shtiplie : *see* Īsthib  
 Siĉevo, 450  
 Siĉevska Klisura : *see*  
     Nishava gorge  
 Siderokapsa : *see* Ma-  
     denochōria  
 Sīkia, 401  
 Sīkia Bay, 401  
 Sīkia, Cape, 401  
 Sīlbikim, 354  
 Simītlīi, 293, 299  
 Simvolon Dagħ, 329,  
     330  
 Siña, 181, 183  
 Singjertsit Pass, 170  
 Sinjirli, 367  
 Sinōchnitsa R., 322  
 Sinou Kerasiá, 213  
 Sīntsa, 215  
 Sirt Dère, 411  
 Sitār R., 121, 220  
 Sithonian Mts. : *see under*  
     Lóngos  
 Sitova R., 199  
 Sivota I., 163  
 Sívri Tepe, 393  
 Skala, 25  
 Skarfītza Pass, 171  
 Skarmitza-Domoko, 426  
 Skēte, 383, 385  
 Skobélevo, 368, 453  
 Skómba, 113  
 Skopia Mt., 496  
 Skóplje : *see* Ūskūb  
 Skotinas, Kalyvia, 105,  
     110, 111  
 Skotinas, Skala, 105  
 Skoza, 178  
 Skrofotina, 184  
 Skulikariá R., 138  
 Slavs, 72, 74  
 Slépēe, 235  
 Slivnishka R., 451  
 Slivnitsa, 451  
 Slop, 248  
 Smardési : *see* Smrdesħ  
 Smérta, 163  
 Smigós R., 136, 139, 140  
 Smiksis : *see* Miliáda  
 Smiksis R., 390, 391,  
     398  
 Sminitza Mts., 286, 444  
 Smóchevo, 313  
 Smókvice, 251, 255  
 Smolia, Nea, 119, 120,  
     130, 213, 217  
 Smolia, Palea, 213  
 Smrdesħ, 208  
 Snevche, 408  
 Snow, 23, 49  
 Sóba, Karaúla, 247  
 Sobranje, 78  
 Société Ottomane des  
     Mines de Cassāndra,  
     380  
 Sofali : *see* Sufili  
 Sōfia, 43, 45, 54-63, 264,  
     286, 293, 295, 296,  
     318, 321, 364, 419,  
     425, 451, 458, 485  
 Sōfia, plain of, 35, 38,  
     269  
 Sofula : *see* Sufili  
 Sófular, 363  
 Sokolárci, 272  
 Sóliste Dère, 280  
 Solun : *see* Salonica  
 Sop, 236  
 Sophades, 430  
 Sophaditikos R., 426  
 Sópot, 246  
 Sopótnica, 235  
 Sorgunli, 356  
 Sorovich, 29, 198, 211,  
     432  
 Sosino monastery, 168  
 Sosúrki, 336  
 Soter : *see* Sotir  
 Sotero, 499  
 Sotir, 211, 229  
 Soúli, 159, 160  
 Soúli, Cape, 401  
 Soúli R., 156  
 Sovi, 228  
 Sovolyáno, 267  
 Spánĉevo, 272  
 Spáncha, Dólnya, 310,  
     311  
 Spáncha, Górnja, 311  
 Spánchevo : *see* Spán-  
     cha, Dólnya  
 Spanish Jews, 73, 482  
 Spátovo, 288  
 Spihovo, 199  
 Spilia Cove, 175  
 Spinássa, 134  
 Srbínovo, 237  
 Sredets : *see* Sofia  
 Stambolovo, 452  
 Stámer, 280  
 Staniĉenje, 450  
 Stani Kalmak, 187  
 Stanimáchitsa R., 367,  
     453



- Stanimáka, 343, 344,  
     453, 486  
 Stára Batáshka R., 305  
 Stára Pesh térska R.,  
     307, 308  
 Stara Popadija, 228  
 Stára R., 256, 257  
 Staravina, 227  
 Stara Zagora, 45, 46, 47,  
     54-63, 367, 453  
 Stárigrad, 244  
 Staroselo, 350  
 Starovec, 236  
 Stavronikita, 383  
 Stávros, 404, 405  
 Stavros Mts., 148, 150  
 Stavros Pass, 142, 149  
 Strávros, Skala, 405  
 Stavrosh, 196  
 Stavroskiazí, 181  
 Stefanamuslim, 412  
 Stenimachos : *see* Stani-  
     máka  
 Steña Han, 193  
 Stena Galiku, 442  
 Steno gorge, 153, 177  
 Sténoma, 137  
 Stephenossaios, 430  
 Stevester, 178  
 Stimivlja, 276  
 Stip : *see* Íshtib  
 Stípi, 105  
 Stob, 313  
 Stóykovo, 368  
 Strácin, 263, 265, 270,  
     272  
 Strácina Plánina, 265  
 Strada Bianca, 175  
 Strájan, 237  
 Stratoníki, 380, 405  
 Stratoníkon Oros, 374  
 Strevina, 154  
 Strúga, 234, 243, 483  
 Strúgoval Plánina, 235  
 Strúma gorge, 267  
 Strúma Plain, 413  
 Struma R., 34, 37, 38,  
     40, 42, 267-269, 274,  
     277, 280, 282, 283,  
     286-292, 294, 295,  
     296, 299, 310-312,  
     315, 325-327, 406,  
     412, 413, 422, 444,  
     456, 457  
 Strúmitsa, 40, 224, 253,  
     256, 257, 277, 279,  
     281, 291, 435, 436,  
     488  
 Strúmitsa, plain of, 279  
 Strúmitsa R., 252, 253,  
     277, 279, 281, 282,  
     291  
 Strúmitsa Station, 225,  
     252, 253, 436, 488  
 Strúmnitsa : *see* Strú-  
     mitsa  
 Strúpica spring, 258  
 Strupino, 226  
 Strymon R. : *see* Stru-  
     ma R.  
 Studéna, 269  
 Stur Ísker R., 364  
 Styliða : *see* Styliis  
 Styliis, 25, 418, 426  
 Styrphaka, 426  
 Subotsko, 225, 226  
 Su-Cigari, 336  
 Súflar, 394  
 Sufli, 449, 488  
 Sugar-cane, 47  
 Sugúdlu Chai, 347  
 Suha Laka R., 279  
 Suho, 414  
 Suhodol-Raja, 227  
 Suhos, 180  
 Suhos, Lyumi, 180, 181  
 Sukovo, 450  
 Súlagi Dére, 341  
 Sulovo, 416  
 Sultán Tépe, 271  
 Sulu gorge, 452  
 Sulu R., 365  
 Súluyúnus, Han, 351  
 Sunár, 395  
 Sunstroke, 67  
 Súrdol, 257  
 Súsam, 368  
 Súshitza R., 173, 174,  
     178, 179, 182, 183,  
     293, 344  
 Súsica, 261  
 Sutitza Mts., 168  
 Svéti Géorgi monastery,  
     250  
 Svéti Luka monastery,  
     314  
 Svéti Iván monastery,  
     235  
 Svéti Márko monastery,  
     232  
 Sveti Naum monastery,  
     233  
 Svéti Nikóla : *see* Klí-  
     seli  
 Svéti Pétka, 232  
 Synova : *see* Papapoúli  
 Synteknon, 135  
 Syráku, 137

## T

- Tabanovac : *see* Taba-  
     novche  
 Tabanovche, 440  
 Táhinós L., 325, 326,  
     406, 414, 444  
 Talaat Bey, 71  
 Talašmánci, 263  
 Tanagra, 418  
 Taránci, 275  
 Tasholuk defile, 444  
 Tátar Bazarjik, 300,  
     302, 305, 307, 322-  
     324, 364, 366, 452,  
     488  
 Tatari, 124  
 Tatarli, 253  
 Tékekői, 260  
 Tekeli, 430  
 Tekés, 124  
 Tekés convent, 202  
 Tekovo, 228  
 Tempe R., 103, 104, 111  
 Tempe, Vale of, 26, 27,  
     31, 418, 427  
 Temperature :  
     mean, 54  
     mean monthly  
         range, 56  
 Tepani, 189  
 Tepejik : *see* Dvoran  
 Tepeleni, 171-173, 177,  
     178  
 Teránci, 275  
 Terhovishta, 195  
 Tétovo, 39, 237, 238,  
     489  
 Tétovo Pólje, 237  
 Tetránise Ís., 484  
 Thasos I., 38, 498  
 Thaumaci : *see* Do-  
     mokó



- Theodóriana, 142, 149, 150  
 Theologo, 498, 499  
 Theriakísi, 153  
 Thermopylae, 66  
 Thessalian Rly. Co., 418, 419  
 Thessaloniki: *see* Saloníca  
 Thessaly, 9, 10, 128, 201  
     agriculture, 33  
     communications, 22, 26  
     harbours, 25  
     mountains, 24, 122, 124, 127, 129  
     plain of, 29, 33, 112, 117, 134, 139, 143, 426, 427, 429, 430  
 Thrace, 34, 69  
 Thracian Plain, 454  
 Thunderstorms, 51  
 Tikveš: *see* Kávardar  
 Tikveš district, 246  
 Timber, 375, 376  
 Tírana, 243  
 Tíria R., 164  
 Titaresios R.: *see* Xerías R.  
 Tobacco, 378  
 Tódarovo, 283, 409  
 Tomor Mt., 186, 187  
 Tomori, 187, 188  
 Tomoritza, 186  
 Tomoritza R., 187  
 Tónkovo: *see* Injéli  
 Topálova, 287  
 Tóplica Han, 245  
 Tóplica R., 441  
 Tópólia, 157  
 Topólka R., 244, 438  
 Topólnica, 257, 258  
 Topólnitsa R., 295, 366  
 Topólovo, 344, 355  
 Topolyani, 286  
 Topouzlar, 429  
 Topsín, 224, 433  
 Toróne, 401  
 Torónis B., 401  
 Tóskesi, 159  
 Toskia Pass, 147, 204, 205  
 Totyes, Han, 190  
 Tourkochóri, 221, 222  
 Toúrnavo, 114, 117, 120, 129  
 Trabotiviste, 280  
 Trajan's Gate, 38  
 Trajas, 171, 175  
 Trákiyets, 350  
 Transylvania, 38  
 Trapčindol, 236  
 Trebatsi, 170  
 Treblova Hills, 182  
 Trekánya R., 253  
 Tréska R., 238, 241  
 Tria Chania, 202  
 Trikkala, 18, 21, 30, 31, 33, 106, 127, 128, 130, 133, 140-145, 201, 217, 419, 430, 489  
 Trikkalínós R., 130, 430  
 Tríkorfa Mt., 398  
 Tripótamo, 401  
 Trnóvca, 263  
 Trínovo, 237  
 Trínovo-Seimen, 453  
 Trojáci, 245  
 Trubada R., 198  
 Tsalapíshta, 366  
 Tsangón, 209  
 Tsangón Pass, 21, 209  
 Tsárevosélo: *see* Cárevo  
 Tsaribrod, 268, 424, 450  
 Tsérkva, 269, 295  
 Tsernabara R., 451  
 Tsiropóle, Gornye, 298  
 Tsiropóle Han, 298  
 Tsiropóle Kálesi, 298  
 Tserovo Pass, 432  
 Tsérvishta, 309  
 Tsífiki, 161  
 Tulumlár Tépe, 333  
 Tumba, 248, 394, 395  
 Tumčevista, 237  
 Túnja R., 353, 363, 369, 454  
 Turánli Chiftlik, 388  
 Turčáne, 237  
 Túrija, 273  
 Turița, 412  
 Turkey:  
     administration, 80  
     history, 69, 80  
     money, 91  
     roads, 18  
     weights and measures, 89, 92  
 Turks, in Chalkídike, 381  
     in Macedonia, 73, 74  
 Túrnovo, 210  
 Túshchulu, 283  
 Túzla (Chalkídike), 395  
 Túzla (nr. Leftera), 328  
 Tuzla-Kitro, 428  
 Tuzulu L., 250  
 Tyrnavos: *see* Toúrnavo  
 Tzairia R., 111, 112  
 Tzále, 396  
 Tzarakovítza R., 159  
 Tzerkovina, 184  
 Tzérnivo, 119  
 Tzífiki, 127  
 Tzináphoro, 106  
 Tzoúka, 161  
 Tzoulari, 429  
 Tzourmakli, 125  
 Tzumérka Mts., 148  
 U  
 Uljárci, 263  
 Ura (bridge): *see under specific name*  
 Úrta, 358, 362, 454  
 Urúmli, 260  
 Urunjik, 359  
 Úšküb, 35, 39, 46, 50, 54, 234, 260, 264, 420, 422, 439, 489  
 Ústitsa, 333  
 Ustrumja: *see* Strúmitsa  
 Uzúnali, 395  
 Uzúndzova Plain, 264  
 Uzúnjovo, 368  
 Uzún Kōprü, 362, 455  
 V  
 Vach R., 452  
 Vacha: *see* Stara Pesh-térska  
 Vafi, Karaul, 153  
 Vakánov, 292  
 Vakarel, 320, 365, 424, 451  
 Vakarel Pass, 451  
 Vakuf (nr. Avret Hisar), 250

- Vakúf (nr. Sufili), 361  
 Vakufche promontory, 193  
 Vakúfköi, 229  
 Valandova, 252  
*Valki*, 82  
 Valkáni, 144  
 Valóna, 9, 21, 23, 46, 54-63, 166, 169, 171, 174, 178, 179, 181, 182, 183, 184, 490  
 Valóna Bay, 171, 174, 175, 491  
 Valóna, lagoon of, 183, 184  
 Valovíshka Bélitsa, 309  
 Valovishka : *see* Démir Hisár  
 Váhta, 398  
 Vardár Plain, 428  
 Vardár R., 35, 36, 39, 40, 106, 224, 237, 238, 246, 247, 248, 251, 252, 259, 260, 280, 430, 433, 434, 436, 437, 438, 440  
 Vardári, 143  
 Variádes, 159  
 Varona, 91, 451  
 Varos, 199  
 Vároš, 241  
 Varva R., 200, 201  
 Vasiláki, 329  
 Vasili, 125  
 Vaslika R., 371, 379, 386, 387, 388, 389, 393  
 Vaslika, plain of, 375  
 Vasilyevo, 277  
 Vathyrrehvma, 143  
 Vathyrrehvma R., 143  
 Vatónia Mt., 392  
 Vatopédion, 385  
 Vatopédion Bay, 402, 403, 404  
 Vatziniá, 139  
 Vávdos, 393  
 Vávdos Dagh, 389, 393  
 Vávdos-Vilja Mts., 375  
 Velebisti, 183  
 Velemísti, 131, 212, 213, 214  
 Véles, 39, 40, 244, 259, 438, 491  
 Velestino, 32, 121, 122, 127, 419, 428, 429  
 Velestino Plain, 429  
 Veliani, 158  
 Vélica R., 246  
 Vélika, 242  
 Velika Plana, 420  
 Vélika R., 236  
 Velisiotes, 426  
 Veloúchi Mt., 133, 137  
 Veltzista, 165, 169  
 Velúšina convent, 232  
 Velvendo, 107  
 Vendista, 146, 147  
 Venétiko, Karaul, 199, 201  
 Venétiko R., 199, 214, 219  
 Vérba, 268  
 Vébiani, 229  
 Vébítsa, 368  
 Verbóvka R., 315  
 Verbovo : *see* Sorgunlii  
 Verenos, 324  
 Vérila Plánina, 318  
 Vermion Mt., 221, 222  
 Vérria, 29, 39, 195, 196, 222, 223, 224, 431, 492  
 Vertekóp, 223, 226, 431  
 Vaternica R., 441  
 Vaterníko, 142, 143, 145  
 Vetérsko, 259  
 Vétrina, 283  
 Vézma R., 332  
*Via Egnatia*, 36, 324, 371  
 Viavítza R., 405  
 Vidovísta, 275  
 Vienna, 419  
*Vilayet*, 82  
 Vilya Mt., 403  
 Vinchusit, Han, 189, 190  
 Vine, 374, 398  
 Vínica, 273, 274, 275  
 Vinicáni-Grádsko, 245, 246, 438  
 Vinéka Gumna, 273  
 Virániya, 310  
 Virán Téke, 369  
 Visit, Chafa, 183  
 Visoka, 413  
 Vitstritza R., 21, 25, 28, 29, 106, 112, 115, 116, 167, 195, 197, 206, 209, 428  
 Vitósha Plánina, 457  
 Vitosh Mt., 269  
 Vitvení, 107  
 Vitzista, 141, 142, 143, 144, 145, 146  
 Vjétreñica, 265  
 Vlachava, 215  
 Vlácho Kastaniá, 145, 146, 147, 205  
 Vlácho Klisúra, 208  
 Vlacholivadi : *see* Livádi  
 Vlachoyánnis, 119  
 Vlachos, 74, 119  
 Vladáya, 269, 457  
 Vradičin Han, 441  
 Vládova, 227, 431  
 Vládova Pass, 222, 227  
 Vladóvtsi, 257  
 Vlaina R., 178, 179  
 Vlási, 140  
 Vodadolma R., 436  
 Vodecha R., 277  
 Vodena, 39, 221, 222, 223, 225, 226, 227, 431, 492  
 Vodena Pass : *see* Vládova Pass  
 Vodóvcha R., 256  
 Voivoda, 430  
 Vojárci, 246  
 Vójnik, 265  
 Vojslávci, 257  
 Vojvoda Putnik, 439  
 Vokopouli, 185  
 Volo, 25, 31, 32, 122, 418, 419, 428, 429, 493  
 Volustana Pass : *see* Sarandáporon Pass  
 Vóvila Dagh, 245  
 Vostina, 181  
 Votzkop, 188  
 Voulgaro, 499  
 Vounó, 175  
 Vourgareli, 137, 145, 148, 149, 150  
 Vourgareli Mt., 141  
 Vourgareli R., 141, 149  
 Vourvouri Bay : *see* Dimitrios Bay

Vourvouri, Cape, 401  
 Voutrinto, 166, 167  
 Voutrinto Bay, 167  
 Voutrinto Lake, 167  
 Voutrinto Plain, 167  
 Voutrinto R., 167  
 Vouvos, 159  
 Voyódovo, 349  
 Voyúsa R., 173, 176,  
 177, 178, 182, 183,  
 184, 192, 194, 200  
 Vranishta, 170  
 Vránja, 39, 265, 440  
 Vrásta, 390, 392, 405,  
 416  
 Vrbjáni, 240  
 Vromeró, 169  
 Vrondistá, 198, 206  
 Vrontisméni, 213  
 Vrouvianá bridge, 135  
 Vrysi, 107  
 Vrysi R., 166  
 Vulsista, 328  
 Vyérbovo, 340  
 Vyétren, 366  
 Vyros, Han, 153  
 Vyros R., 152, 153, 155,  
 164  
 Vyros spring, 153

## W

Walnut, 379  
 Water, 67  
 Winds, 49

## X

Xánthi, 41, 334, 335–  
 337, 339, 345, 445, 493  
 Xenophón monastery,  
 398  
 Xerías R., 31, 113–115,  
 117–120, 129, 167,  
 212, 217  
 Xerolivadi, 196  
 Xerxes' Canal, 375, 403  
 Xiropótamos, 401  
 Xylopyrgos, 396  
 Xynias L.: *see* Nezeró  
 L.

## Y

Yábilli, 357  
 Yáblonitsa R., 301  
 Yagljajik, 195  
 Yáijilar, 250  
 Yaikin, 415  
 Yakorúda, 297, 299–302  
 Yali Dére, 358  
 Yalli, 337, 345  
 Yamboráno, 267  
 Yanákovo: *see* Niya-  
 kova  
 Yanesh, 408  
 Yania: *see* Yánina  
 Yanikia: *see* Yaikin  
 Yánina, 21, 22, 30, 31,  
 128, 133, 142, 147,  
 150–152, 154–158, 160,  
 163–166, 169, 172,  
 176, 189–192, 194–  
 196, 198–203  
 Yánina L., 152, 169,  
 203  
 Yanitza: *see* Yenije  
 Vardar  
 Yanitza R., 183, 184  
 Yánnouli, 113  
 Yánovo, 310  
 Yardimli Su, 357  
 Yavórnitza, 221, 222  
 Yáziköi, 345  
 Yédi Köi, 361  
 Yenihan, 116  
 Yenije Karasu, 335, 337  
 Yenije Lake, 225  
 Yenije Vardar, 195, 494  
 Yeniklaf, 37  
 Yéniköi (nr. Chai Ág-  
 hizi), 327  
 Yéniköi (nr. Dédeagach)  
 422, 447, 448  
 Yéniköi (nr. Kryésna  
 bridge), 292  
 Yéniköi (nr. Ókchilar),  
 445  
 Yéniköi (nr. Philip-  
 pópolis), 343  
 Yéniköi (nr. Saloníca),  
 410, 411  
 Yéniköi (nr. Seres), 286  
 Yéniköi (nr. Strúmitsa),  
 281  
 Yeni Mahalla, 410, 415

Yeni Mahalle: *see* Bó-  
 risovgrad  
 Yénioglu, 363  
 Yenishehr: *see* Larissa  
 Yermani, 415  
 Yézero Súho, 314  
 Yezevitsa R., 451  
 Yokari Kopanóna, 223  
 Yórgani, 159  
 Young Turks, 71, 83  
 Yurúks, 378, 381, 393,  
 395

## Z

Zábko, 401  
 Zaglánia, 217  
 Zagóri, district of, 194  
 Zagoritiko R., 201  
 Zagradetz, 193  
 Zája R., 238, 239  
 Zajaska R., 236  
 Zaravóutzi, Han, 164  
 Zarezá, 185  
 Zárkos, 127, 129, 130  
 Zarovína, Han, 168  
 Zarovína L., 168  
 Závrocho Mt., 157  
 Zdrávik, 327  
 Zedflovó, 266  
 Zékerja Pétilap Han,  
 240  
 Zeleníko, 439  
 Zeleníkovo, 438  
 Zelevíca R., 279, 280  
 Želéznicá, 263, 270  
 Želézno Recané, 237  
 Zelova, 165  
 Zérétzi, 141  
 Zernóvci, 275  
 Zernovo, 331  
 Zerovjáne, 237  
 Zervohori, 326  
 Zévzili, 311  
 Zhablyano, 456  
 Zhénsko: *see* Avret  
 Hisar  
 Zhénsko R., 249, 250  
 Zhítusha, 268  
 Zhupanishta, 207  
 Zibevče-Ristovač, 440  
 Zihna: *see* Ziliáhovo  
 Ziliáhovo, 286, 287, 327



Ziliána R., 111  
 Ziskatas : *see* Diskáta  
 Zitouni : *see* Lamía  
 Zítza, 168  
 Zivínje, 261  
 Zivkovo, 322  
 Zivonja, 228  
 Zlétovo, 263  
 Zletóvska, 272

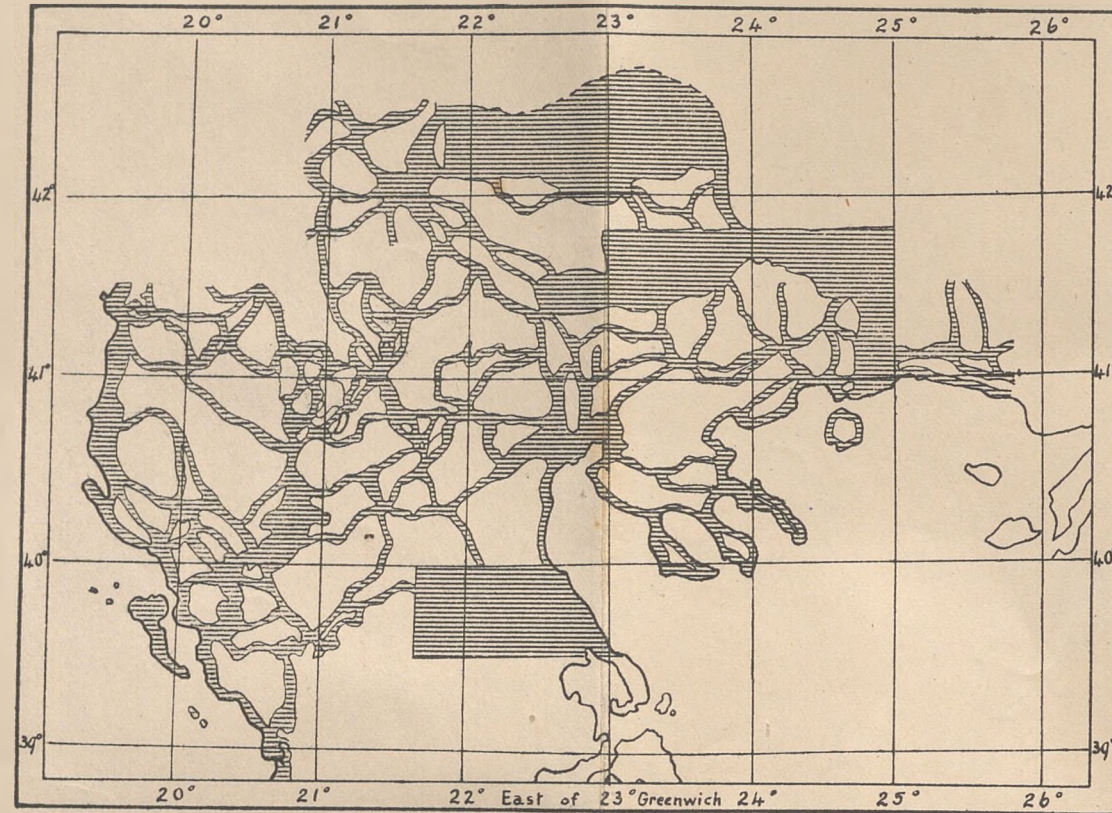
Zletóvska R., 263  
 Zlokucháne, 319, 322  
 Zográphou monastery,  
 383, 386  
 Zorba, 195  
 Zore, 170  
 Zovik, 227  
 Zrimazes : *see* Drymá-  
 des

Zúlíca, 234  
 Zúmbat, 395  
 Zúrče, 235  
 Zvezda, Han, 193  
 Zvígor, 273  
 Zygós Mts., 138  
 Zygós Pass : *see* Met-  
 zovo Pass





# MACEDONIA



Areas shaded are those for which more or less detailed surveys are available. In the areas left blank the maps are compiled from road reports and sketches.





А.П.О.

А.П.О.

А.П.О.

526







